

**Perspectives of Chinese couples on their experience of
Assisted Reproductive Technology (ART) treatment**

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Declaration

I declare that I have composed this thesis and that the work is my own.

Annie Kit Ling Lau

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Abstract

The aim of this study is to explore the way in which Chinese couples experience and make sense of Assisted Reproductive Technology (ART) treatment. An understanding of how infertile couples experience their infertility and ART treatment is essential if the development of supportive infertility care is to be effective. Experiential accounts of infertile Hong Kong Chinese couples have received little attention in the literature. This study is a phenomenological one, using the Husserlian philosophical approach. A purposive sample of 15 Hong Kong Chinese couples was selected for interview. Each of the participant couples were followed through one treatment cycle and interviewed separately on one, and jointly on two occasions; a total of 60 interviews were obtained. Data was generated from taped interviews and the researcher's field notes. Data was analyzed by using a modified Colaizzi (1978) method. By using a couple-centred approach, rich experiential data was obtained.

Five mega themes emerged from the data: uncertainty posed by infertility, ART as a means to achieve biological parenthood, normalising the ART treatment process, dealing with the treatment outcome and making sense of ART treatment. The data demonstrated that infertility posed uncertainty for the couples and that their intentions for parenthood were shaped by personal, social and cultural factors. The ART process revealed the stressful nature of the treatment and how the couples attempted to normalise this by engaging in cognitive, affective and behavioural strategies to deal with the process. When the treatment failed, the couples used selective disclosure and spiritual faith to help them to process and accept their sense of loss. They developed a greater emotional awareness during the course of the treatment and afterwards, found they had gained a better sense of understanding of its complexities and its impact on them. Consequently, the couples began to reframe their lives and reproductive goals. The findings of this thesis will add to existing knowledge of Hong Kong Chinese couples' experiences of infertility and the ART treatment process. The implications for clinical practice, nursing education and research are discussed.

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Introduction

Initiation of research idea

Like other phenomenological research, this study is inspired by, and originates from my personal interest, curiosity and experience. My clinical updating programme at the Assisted Reproductive Technology (ART) centre in Hong Kong planted the seed for me to research the area of infertile couples.

The thought of a newborn baby, held in the arms of a mother, whose husband is hugging them both together, always delights me. They are the happy ones. There are always those who are less fortunate however, whose babies are born unwanted or with unexpected abnormalities or stillborn, and there are those who are infertile and cannot have their own children at all. My time at the ART centre inspired my desire to know more. Not only was I interested in medical advancement in ART treatment, but also the care provision for couples undergoing treatment.

The atmosphere of the ART clinic was quite different from the noisy, lively antenatal clinics I was familiar with. The couples appeared quiet and there were not many conversations going on. The men read newspapers, checked their mobile phones and the women waited patiently. On several occasions, I saw disappointed women or couples crying when they left the consultation room. One day, I was approached by a couple who asked: "This is our first visit to this ART clinic and we are starting the treatment. Can you tell us what *this* treatment will be like for us and if it will work?" I paused in that moment. My taken-for-granted nursing knowledge automatically led me to focus on the actual clinical procedures, but I felt that they wanted to know more than just the technological aspects; there was a gap in the knowledge that I wanted to know as well. Their question initiated my motivation to pursue my present study. The aim of this study is to develop a deeper understanding of Chinese couples' lived experience of ART treatment. A better understanding can then inform clinical practice, nursing education and research in order to provide couple-centred care.

Much of the existing literature concerning the psychosocial aspects of ART treatment is based on quantitative analysis of the stressful nature of the treatment (Verhaak et al. 2001; Wang et al. 2007) and the impact of ART outcomes on the marital relationship, marital satisfaction and sexual function (Pasch et al. 2002, Holter et al. 2006; Repokari et al. 2007; Peterson et al. 2009). As discussed in Chapter 1, the majority of literature on ART treatment focuses on women (Hammarberg et al. 2001; Verhaak et al. 2005) although increasingly, studies on infertile men are being undertaken (Lee 1996; Daniluk 2001; Lee & Chu 2001; Throsby & Gill 2004). Recent quantitative studies using couples as a unit of analysis have attempted to study the impact of the partner's response to and way of coping with the infertility treatment (Peterson et al. 2003; Peterson et al. 2006; Peterson et al. 2009). In contrast to the quantitative psychological studies on ART treatment, I look at the meaning that underpins the couples' reactions and perceptions of their infertility and ART treatment. My thesis attempts to examine both husband and wife together. Their existential accounts of their treatment experience provide meaningful insight into their fertility problems. These also help one to look at the way couples perceive their infertility and how ART treatment impacts on their social and relational world. As such, my thesis provides greater significance as to how the social and cultural stereotypes and assumptions in individual couple subjectivities, affect their way of understanding infertility and ART treatment.

The central theme running through the thesis is the way in which the couples normalize the treatment process in order to cope with the uncertainty and demands imposed upon them. Normalizing the treatment process enables them to tolerate the inconvenience as well as endure the physical and emotional demands. I also address the couples' desire for parenthood, that which has driven them to undergo ART treatment. I explore the couples' lived experience and the way they deal with the treatment outcome. The influence of Chinese philosophy on body, mind and spirit is significant to how the couples perceive their choice of treatment. Although the couples had committed to ART treatment, they believed that traditional Chinese medicine (TCM) would also maintain their health. TCM offers a range of infertility treatments including Chinese herbal medicine, acupuncture, dietary therapy (*shi*

liao), exercise and spiritual therapy (see Chapter 2 for details). This thesis illustrates the pluralist use of TCM and lifestyle adjustment among Chinese couples. The findings provide ground-breaking understanding of how Chinese couples cope and adjust to the impact of ART treatment.

The study

Study aims

The aim of the study is to develop an understanding of the experience of having ART treatment from the perspective of fifteen Hong Kong Chinese couples. The focus of this study is to gain new knowledge about the lived experience from both husbands and wives for their first cycle of treatment and to understand the impact of the ART treatment on the couples' social relationships, their personal selves and their life goals.

Research questions

1. How did the couples perceive their infertility problem?
2. What were the meanings for the couples in pursuing ART treatment?
3. What was it like having ART treatment?
4. How did the couples attempt to cope with the treatment?
5. How did they deal with unsuccessful treatment outcomes?
6. What was the impact of ART treatment on the couples?

Infertility has an impact on the individual's entire sense of self, as he or she functions as husband or wife and in society. ART treatment creates hope for couples, but it also causes uncertainty. Understanding what this treatment means to couples is crucial for both patients and health care providers. The research goals were accomplished through sixty semi-structured interviews with fifteen couples who were asked and were willing to describe their experience of infertility and ART treatment with me. The resulting themes were developed from the interview data which were extracted, analysed and interpreted. These themes were generated to create meaning and

essence to the experience of couples undergoing ART treatment. In Chapters 4, 5, 6, 7 & 8, thematic findings are discussed in relation to recent literature on infertility and ART treatment.

It is hoped that this research will provide a holistic understanding of how Hong Kong Chinese couples experience ART treatment. The ways in which the couples reacted to their infertility problems and their desire for parenthood, provide the context for them to pursue ART treatment. The rich descriptions given by the couples about their entire experience before, during and after the ART treatment provide a deeper insight into their strength and resources in dealing with the complexity of this treatment.

The structure of the thesis

This thesis is broadly structured chronologically, beginning with reactions to infertility. In Chapter 1, *The literature on the experience of ART treatment*, I invite the reader to reflect on what the existing literature reveals about our culture's taken-for-granted knowledge about infertility and ART treatment. It examines how individual men and women are affected at a personal and social level. It moves on to examine the literature on ART, particularly in addressing couples' stress and coping methods, and the impact of treatment on their relationships and social support. It concludes with a critique of the literature on couples experiencing this treatment and the gap in the literature in addressing Chinese couples undergoing ART.

In Chapter 2, *Chinese socio-cultural dimensions of infertility and ART treatment*, I describe the doctrines of Confucianism, Taoism, Buddhism and Christianity to give a cultural understanding of how these affect reproductive behaviour in Hong Kong. I also describe the cosmos concept of traditional Chinese medicine. I reveal the historical and social structural factors influencing health beliefs and practices among Hong Kong Chinese people. This review provides the social and cultural background upon which this study is based.

In Chapter 3, *Researching the Assisted Reproductive Technology (ART) treatment experience*, I present the research approach that guides this study and explain the criteria appropriate for judging the rigour of the study. I reveal my rationale for choosing phenomenology and the major concepts of phenomenology for research. I show the reader what I was thinking when developing the research process. I use purposive sampling to select couples undergoing their first ART treatment cycle. I deal with issues including recruitment, conducting interviews, ethical considerations and handling the interview material. I also describe in detail how I interpret the data.

Chapters 4, 5, 6, 7 and 8 offer a full account of the emerging themes of the findings. In Chapter 4, *Couples' experiences of infertility and pursuing ART treatment*, I begin by describing the demographic background and experience of each couple that took part in my research study. I explore the couples' reactions to their infertility within their personal and social context. I also explore the powerful rhetoric of social nature that shapes the couples' desire for parenthood and their reasons for choosing ART treatment.

In Chapter 5, *Engaging in the ART treatment process*, the overarching theme of 'normalising ART treatment' encapsulates how the couples minimise the stress and physical and emotional demands by tolerating the inconveniences imposed - through trusting the doctor and accepting the idea of procreation moving from private to public. The theme 'What if...it does not happen' addresses the emotional, physical and relational demands that the couples experience during the treatment process. I also examine how the couples use cognitive, affective and behavioural strategies to cope with the treatment process.

In Chapter 6, *The lived experience of loss associated with ART treatment*, I explore how the couples respond to the outcome of their first ART cycle of treatment. With the exception of one, all the couples' first cycles of treatment were unsuccessful. The theme 'Before the loss' captures the couples' sense of doubt and wishful thinking. The theme 'Dealing with the loss' captures the husbands' and wives' reactions to the failed outcome. The couples' emotional response to their loss in searching for

causality, changing issues of blame, feelings of powerlessness and fear of multiple losses are addressed. I examine the spousal, spiritual and professional supportive activities that the couples use to deal with their loss. I also discuss how the spirituality of Chinese philosophy enhances the couples' acceptance of a failed outcome.

The impact of ART treatment forms the basis of Chapter 7, *Understanding the couples' reflections after ART treatment*. The theme 'Making sense of ART treatment' reflects the couples' understanding of the meaning of success and failure, their increased awareness of risk taking and their interpretation of control regarding the treatment. The theme 'Creating a new understanding on temporal and corporeal dimensions' captures the couples' reflections on how time changed as they went through the treatment and highlights how the couples perceive the way the treatment affects their bodies, and their use of Traditional Chinese Medicine to regain healthy bodily status. The theme 'Reframing infertility and ART treatment' recounts the new meanings that the couples learn after their ART treatment, and how they reprioritize and redefine their life goals. I also examine their reproductive choices after having ART treatment and I argue that these choices are shaped by social and cultural changes. As the study is based on the couple as a unit of analysis, finally, I specifically address how ART treatment impacts on the couples' relationships, highlighting their deeper understanding of each other.

In Chapter 8, *Conclusion and Recommendations*, I draw together the major themes and issues arising from the study and offer discussion around the idea that the results have added new understanding to the research on couples who are undergoing ART treatment. This is followed by my own reflections on the research study. The taken-for-granted assumption of the researcher gradually unfolds during the research process, which also helps the couple, in particular, the men, to voice their experiences. Finally, this chapter concludes with suggestions for future research.

Chapter 1

The Literature on the Experience of Assisted Reproductive Technology (ART) treatment

Introduction

Most married couples assume that they will eventually become parents. Parenthood is considered by many men and women to be an expected social and developmental milestone in their lives. Infertility is a relative term implying sub-optimal fertility or the inability to produce a live child. According to the National Institute for Clinical Excellence (2004 p.10), infertility is defined as: “failure to conceive after regular unprotected sexual intercourse for 2 years in the absence of known reproductive pathology”. The problem may be considered primary if the couple has never conceived or secondary if conception has been achieved successfully in the past (Fraser & Cooper 2003). The causes of infertility can be divided into female factors, male factors, a combination of both factors and sometimes the causes are unknown. The World Health Organization (2002) states that infertility affects more than 80million people worldwide. Approximately one out of seven couples have difficulty conceiving (Royal College of Obstetrics & Gynaecologists 2000). Major advances in Assisted Reproductive Technology (ART) have expanded the range of treatment options available to infertile couples.

In this chapter, I establish the research context as an essential part of my phenomenological enquiry into couples experiencing ART treatment. This review firstly involves the analysis of existing literature on couples’ reactions to infertility within gendered perspectives. Then I focus on current literature related to ART, specifically on couples’ experiences of the treatment process and its impact.

To conduct this selected literature review, I used multiple information sources including books, internet resources, dissertations, professional journals, conference papers, periodicals and newspaper articles. These sources were accessed through

online search engines including Science Direct, CINHALL, ProQuest, PsyArticles, Ovid, Medline, Social Science and Digital Dissertations. I used key phrases such as 'experience of infertility and treatment', 'stress, coping and adjustment', 'psychosocial effects of IVF and ICSI treatments', 'sociological and cultural issues on infertility and ART treatment' and 'assisted reproductive technology treatment and outcome'. To begin with, I chose nursing and medical literature on infertility and ART treatment. Later, I also explored social anthropology and psychology literature that addresses the psychosocial and cultural perspectives of the chosen topic. For ART treatment, I specifically chose studies related to *in vitro* fertilization (IVF) and ICSI. So far, no study has been conducted in Hong Kong to explore the existential meanings of infertile Hong Kong Chinese couples undergoing ART treatment. My study focuses on the lived experience of Hong Kong Chinese couples having ART treatment, in an attempt to contribute new knowledge to the apparent lack of literature addressing couples' experience of the treatment and its impact.

1.1 Couples' reactions to infertility

There is a substantial body of knowledge on the psychology, sociology and anthropology of infertility. All the studies show that there are various factors affecting sexual and reproductive behaviour and consequently affecting how society and couples perceive infertility. Couples who are unable to conceive feel that they are unable to fulfil their wishes for a baby. Raphael-Leff (2005) states that a prolonged period of infertility affects couples' self-doubt, their own gender identity and drains their sexual and emotional resources. In Menning's (1980, 1988) pioneering work on infertility, she interviewed both men and women and described infertility as a life crisis in which couples experience feelings of surprise, denial, anger, isolation, guilt, grief and subsequent resolution. Menning (1980) also argues that couples grieve over the loss of an imagined child. Mander (2004) shares a similar view about the grief that couples experience when they are unable to conceive. In the following section, I focus on female as well as male infertility and how the stigma of infertility can affect couples.

Female infertility

The psychological impact of infertility has been extensively researched and consistently demonstrated to be the cause of a range of negative emotions for women, often associated with stigmatizing feelings of shame, guilt, inadequacy, failure and incompleteness (Gonzalez 2000; Redshaw et al. 2007). Nurse scholar, Blenner (1990), postulates a rite of passage theory to explain eight stages, including a dawning of awareness, facing a new reality, having hope and determination, intensifying treatment, spiralling down, letting go, quitting and moving out and shifting focus. Hainsworth et al. (1994) describe infertility as a chronic sorrow that women experience with an ongoing sense of loss or despair, often triggered by specific events such as menses, visits with friends with children or attending children's functions. This response perpetuates in cycles of hope and despair (Woods et al. 1991). Olshansky (1987) developed the concept of taking on infertility as an identity for the woman and how this infertile identity shifted when these women became pregnant (Olshansky 1990). Olshansky (1996) went further to explain how the infertile identity could constrain women within their interpersonal social relationships, as they might not engage with other women who are pregnant and having a family. Other nurse scholars, Sandelowski et al. (1990), describe how infertile women viewed themselves differently from fertile women. This view was also shared by sociologist, Greil (1991), who describes the socially constructed reality of infertility in which the world of the infertile is different from the world of the fertile. Sandelowski (1995) went on further to examine the transition of infertile couples to parenthood and found that these parents carried on their infertile identity even when they became pregnant. Becker (1994) describes how infertility challenges the individual's social and cultural notions of physical and social order. Allan (2002) highlights the power that emotion has on infertile women and how this emotion is socially hidden and invisible; she further emphasizes how the environment of the ART clinic and staff facilitates and tolerates this emotion (Allan 2009). Nursing scholars have thus attempted to develop a theoretical framework with which to understand the psychological impact of infertility on women.

The experience of infertility constitutes a major life crisis, precipitating feelings of grief, anger, guilt, blame and depression (Greil 1991; Woods et al. 1991; Gonzalez 2000). In this descriptive literature, qualitative studies acknowledge the stressful nature of and the distress reactions generated by infertility. The psychoanalytic literature identifies and explains the reactions of infertility. Allan (2009) argues that the psychoanalytic literature also explains the impact of infertility. However, this literature may not be accessible to nurses and midwives.

Male infertility

The literature on men's experiences of infertility and involuntary childlessness and men's health is comparatively rarer than on that of women. The cultural associations of reproduction for women (Franklin 1997) and the focus of reproductive technology on the woman's body (Morrow et al. 1995; Peterson et al. 2007) have made male experiences less prominent. However, technological advancement in intracytoplasmic sperm injection (ICSI) for male infertility (see Glossary) has made it possible for this to be treated, resulting in increased literature addressing male infertility. In addition, the contemporary egalitarian expectations for couples and the current emphasis on men's health and fatherhood has gradually brought research attention to men's experiences in this area (Lee & Owens 2002).

Throsby & Gill (2004) conducted a study to explore men's experiences of infertility, their perception of IVF as a technology and their involvement in the IVF process. Based on in-depth interviews with 13 heterosexual couples and 15 women (whose husbands did not participate in the interviews) recruited from NHS hospitals, their findings indicate that male infertility causes a major life crisis with feelings of grief, anger and loss. Their results share similar findings with previous studies in that the inability of men to make their partner pregnant makes them feel less like a man, male infertility threatens their masculinity and potency (Mason 1993; Lee 1996; Webb & Daniluk 1999; Daniluk 2001; Lee & Chu 2001). The male participants in Webb & Daniluk (1999) and Daniluk (2001) studies' were predominantly middle class, well-educated males and, therefore, their findings may not be representative of those who

were unable to have IVF or who refused to participate in the study.

Male infertility has been more extensively studied in Taiwan. Lee & Chu (2001) conducted a qualitative research study on the experience of infertility in Chinese men in Taiwan. Thirty Chinese men were interviewed to identify male infertility experiences. Data was analysed using content analysis. Their findings were similar to other studies where infertile men describe intense negative reactions such as disbelief, surprise, bad temperament, anger and loss of control (Webb & Daniluk 1999; Lee & Kuo 2000; Throsby & Gill 2004). In addition, these men grieved for their loss of continuation of the family name and feared that their families and friends would find out about their infertility. Most of the time, their wives were the only people who knew about it. Men also felt the loss of their body and some believed that their past sins or lives might have contributed to their infertility. Findings also showed that these Chinese men were actively using Traditional Chinese Medicine in addition to Western medicine to treat their infertility. Lee & Chu (2001) add to the knowledge on male infertility in Taiwan, however, the lack of research regarding the wives' experiences might hinder the full account of their experiences as infertility affects couples rather than just the man or the woman.

Lee & Owens (2002) comment that research studies do not generally address, in depth, the loss and grief experienced by men during miscarriage, other than those conducted by Johnson & Puddifoot (1996) and Puddifoot & Johnson (1997, 1999). Findings have shown that men also experience distress following their partners' miscarriage, but are unable to grieve as openly because they tend to adopt the caring role for their partners. The successful outcome of ART is relatively low and inevitably men also experience loss through failing to achieve conception through the treatment. No studies have explored the aspect of loss experienced by men while undergoing ART treatment. Therefore, there is a need to explore the existential meaning of loss (as a negative ART outcome) in male participants.

As described above, some literature has addressed men's reactions to male infertility and treatment (Mason 1993; Lee 1996; Webb & Daniluk 1999; Daniluk 2000; Lee &

Chu 2001; Throsby & Gill 2004). Findings demonstrate the silent stand that most men take during the treatment process (Webb & Daniluk 1999; Lee & Chu 2001; Throsby & Gill 2004). This illustrates the need for further research to explore the voice of men who have experienced ART and their response to the impact of it. As far as I know, no similar studies have been conducted in Hong Kong to explore the impact of male infertility on couples. This study attempts to explore men's reactions to infertility and ART treatment, and aims to fill the gap in gender specific responses to infertility and its treatment.

Social Stigma

Feminist scholars comment on how infertility is a hidden, social stigma for infertile women and that medical intervention further stigmatizes women as failures, devaluing them from any other accomplishments outside the role of reproduction (Whiteford & Gonzalez 1995). Several authors support the argument that women are subjected to blame for infertility problems, and seen as a deviation from the societal norm associated with labelling and stigmatization (Riessman 2000; Inhorn 2003). Riessman (2000) discusses how women can manage their infertility in relation to their gender identity. She argues that even in the pronatalist society of South India, childless women use "resistant thinking", "strategic avoidance", "speaking up and acting out" and "rejecting the motherhood mandate", that is, openly admitting their lack of interest in motherhood (Riessman 2000 p.122). However, Remennick (2000) disagrees with this resistance approach. She draws on Goffman's (1963) stigma framework presented in her in-depth qualitative study to explore the experiences of 26 infertile Jewish women in Israel. Her findings highlight how the stigma of childlessness is most devastating for less educated women with no career aspirations and in pronatalist societies. She argues that coping with the stigma using a management approach like "information management", "defensive thinking" and "strategic avoidance" is more relevant than the resistance approach as suggested by Riessman (Remennick 2000 p. 837).

Infertility is perceived as an invisible or hidden defect for women as they may lose their desired identity to be a mother (Remennick 2000). Infertility may be disclosed through the course of communication. Remennick (2000) referred to infertile women disclosing their infertility to their social support network such as family, friends, colleagues, neighbours and women who have similar problems. To cope with the impact of social stigma, Remennick (2000 p.837) emphasized that women use passive strategies such as information management (controlling the amount of information and with whom this information is shared), strategic avoidance (avoiding social functions that may lead to enquiry about their fertility) and defensive approach (providing silent mental reasons for not getting pregnant). To some extent, most infertile people may be able to talk to other people about their infertility (Abbey et al. 1991; Van Balen & Trimbos-Kemper 1994). Women tend to talk with and disclose their infertility problems to others more than men (Schmidt et al. 2005).

Male infertility has been described variously as embarrassing, sensitive and private (Webb & Daniluk 1999; Lee & Chu, 2001; Throsby & Gill, 2004). In society, the gender expectation on men is to demonstrate strength, virility and potency (Golombok & Fivush 1994). Infertile men fail to demonstrate these characteristics. Therefore, most men tend to keep it a secret and are reluctant to disclose their infertility problems because they are afraid of being stigmatised as impotent or un-masculine features commonly associated with male infertility (Mason 1993; Webb & Daniluk 1999; Daniluk 2001; Lee and Chu 2001). Inhorn's (2004) study, conducted in Egypt, addresses the association between male infertility and manhood, revealing how men's wives are generally expected to shoulder the problem for their infertility in public and inevitably still bear the majority of the blame. There are limited studies addressing the stigma of male infertility in Hong Kong. Although Lee & Chu (2001) studied the experience of male infertility in Taiwan, their findings only addressed the impact of infertility on men and did not specifically address the issues of stigma of IVF/ICSI treatment. In traditional Chinese culture (see Chapter 2), childbearing is considered the most important role a woman can play (Jeng 1997; Chan et al. 2002). Confucian teaching emphasises filial piety (see Chapter 2) and having no heir is the gravest offense against filial obligation (Lee & Kuo 2000; Lee & Chu 2001; Lee et

al. 2001). All these studies were conducted in Taiwan. With the unique post-colonial Hong Kong Chinese culture, where there is no enforcement of China's 'One Child' state policy on population control and there is a need to understand how Hong Kong Chinese couples perceive their infertility and ART and the way they manage or disclose their treatment status. In addition, fecundity is seen as a blessing in Chinese culture (Qiu 2001) and hence, infertility bears connotations of 'failure' and 'losing face'. A phenomenological enquiry into men's experience of ART treatment may review the male perspective on the impact of stigma on infertility.

1.2 Psychological Perspectives on ART treatment

Medical advancement in Assisted Reproductive Technology has enabled some couples with infertility problems to achieve conception. However, it does not guarantee that all couples will be able to achieve parenthood. The success of ART remains relatively low. The Hong Kong Council of Human Reproduction Technology came into full function in August 2007, but the national statistics on Hong Kong ART treatment are not yet available. For this reason, I refer to UK statistics here. The UK Human Fertilization & Embryology Authority provides data regarding the success rates of all licensed ART centres. Based on the data in 2006, the number of cycles that resulted in a live birth was 28.6% for women under 35, 25.7% for women aged between 35-37, 17.2% for women aged between 38-39, 10.6% for women aged between 40-42, 4.9% for women between 43-44 and even lower at 0.8% for women aged over 44 (Human Fertilization & Embryology Authority 2010). It is evident that the age of women has a great impact on the success rate (NICE 2004). In addition, there are other factors such as the causes of infertility, length of infertility and use of fresh or frozen embryos, which can also affect the success rate (HFEA 2010). It is known that ART treatment has resulted in a significant contribution to multiple pregnancies (Evers 2000). Multiple pregnancy can cause high perinatal morbidity and mortality, as well as carry health consequences for the parents (Fathalla 2002; Schieve et al. 2002; Verberg et al. 2007). There have been contemporary debates about the most relevant standards with which to assess the success of ART treatment

(Heijnen et al. 2004; Messinis & Domali 2004; Min et al. 2004). Peters et al. (2007) argue that the success rates have been portrayed in a positive manner to favour ART outcomes and highlight the different interpretation in the meaning of success between consumers and service providers. With increasing demands from consumers and the increasing multiple pregnancies caused by ART treatment, pressure was put on the HFEA. Now HFEA have presented a success rate based on live births only. However, the statistics on the births of a live baby can also be problematic. Live birth means born alive at birth, but it does not include complications such as prematurity which can cause significant risks to neonates as well as serious anxiety and stress for the parents. For the couple seeking ART treatment, their desire is to have a baby who is well enough to be taken home and not just born alive. Although the HFEA attempts to provide data to help couples choose their ART clinic, critics comment that there is no available data on the actual costs of treatment or the number of mishaps (BBC News, 29.09.2009). In this study, the couples completed their first cycle of treatment although for all but one of them, the outcome was unsuccessful. The phenomenological approach enables a review of the what and how questions in relation to the interpretation of success. In Chapter 7, section 7.1, I address the couples' meanings with regard to their visions of success and failure during ART treatment.

There are different forms of ART treatment including in vitro fertilization, gamete intrafallopian transfer (GIFT), egg donation and surrogacy (see Glossary). In this study, the focus is on in vitro fertilization (IVF), intracytoplasmic sperm injection (ICSI) and preimplantation genetic diagnosis (PGD) as these are the treatments received by the participant couples. A description of the IVF cycle and ICSI is given in Appendix 1. This section of the review will focus on the psychosocial perspectives of IVF/ICSI/PGD treatment for couples.

A number of quantitative studies (Verhaak et al. 2001; Fekkes et al. 2003) have been conducted to compare the use of psychometric tests to assess stress and anxiety levels in infertile women with data obtained from the general population (i.e. women from the obstetric department) as a control group. The findings illustrate that the

infertile women do not differ from those in the general population (control group) in terms of anxiety, depression and marital satisfaction. However, other studies report higher levels of distress in women beginning IVF or ICSI treatment (Lukse & Vacc 1999; Smeenk et al. 2001; Wang et al. 2007). Wang et al. (2007) conducted a study to assess the psychological health status and marital quality of Chinese women in China who were referred for IVF and ICSI, and, to compare the results with a control group (women from gynaecological visits who were not undergoing any form of infertility treatment). The findings illustrate that Chinese women who seek IVF treatment are more anxious and emotionally stressed than people from the general population. In addition, they also indicate that the IVF subgroup overestimated their chances of having a live birth as a result of IVF and this may inevitably generate additional distress for infertile women. This difference between infertile Chinese women and others may be due to the different perception of motherhood and the perceived essence of a woman's identity. Another possible explanation for the differences may be due to the different point in time between the treatment and when the data were collected. In Wang et al. (2007) and Verhaak et al. (2001), data were obtained just before the start of the treatment and this might have influenced the psychometric measurement of anxiety and stress compared to Thiering et al.'s (1993) study where the data to measure the psychometric tests were taken several months before the start of the treatment. Overall, quantitative studies (Verhaak et al. 2001; Fekkes et al. 2003) project that infertile women do not show differences in psychometric measures when compared with the normal population at the start of the treatment.

Research related to the stressful nature of the treatment

ART treatment can be viewed as a series of physical and emotional demands that the infertile couple must undergo in their pursuit for a biological child. The treatment is a complex process that involves much decision-making, regular clinic visits, ovulation induction, egg retrieval, sperm sample analysis, egg fertilization, embryo transfer and waiting for the outcome. Before ART, the couple might have pursued other conventional forms of infertility treatment, they might have waited a long time before this treatment started with regular clinic visits for at least three weeks. ART

procedures are often seen as intimate, physically and emotionally demanding, painful, isolating and uncertain (Sandelowski et al. 1990; Benjamin and Ha'elyon 2002; Allan 2009). During the ART treatment process, there is always a risk of failure at any of the various stages of the procedures. During every cycle of treatment, the couples experience anxiety and distress regarding the fertilisation process, the surgical procedure involving the egg transfer and ICSI, pressure for the male participants to produce a semen sample on demand and anxiety and uncertainty at the time of embryo transfer and while waiting for the pregnancy test results (Boivin & Takefman 1995; Boivin et al. 1998; Yong et al 2000; Kolonoff-Cohen et al. 2001). Some studies have indicated that the two most stressful periods of the IVF cycle are between the start of the cycle to immediately before oocyte retrieval and just before the pregnancy test (Boivin & Takefman, 1995; Yong et al. 2000; Kolonoff-Cohen). It is evident from these studies that the process is emotionally demanding for both men and women, they are uncertain whether their eggs are good enough for fertilization (Yong et al 2000; Boivin et al. 1998), and the waiting time before the pregnancy test is especially taxing as the couples have already been through so much during the treatment (Kolonoff-Cohen et al. 2001).

Qualitative studies have presented deeper interpretations of how couples experience ART treatment. Imeson & McMurray (1996) conducted a phenomenological study of six couples undergoing IVF treatment in Australia. From their study, the key themes identified were life changes in the couples' relationships, lifestyles and emotions. The women participants refer to IVF treatment as a "roller coaster" experience with cycles of hope at the beginning, followed by disappointment and despair when the treatment failed. Redshaw et al. (2007) conducted a qualitative study to explore women's experience of infertility treatment. The author used open-ended postal questionnaires for 460 women with a response of 230 (50%). Women described a general sense of lack of control and they used the term "going through treatment is like going into a dark tunnel" (Redshaw et al. 2007 p.298). The descriptions encapsulated uncertainty, longing and submission. They described ART treatment as painful, tiring, exhausting, hurtful and dehumanizing. The limitations of the study were due to the use of postal questionnaires which resulted in a high drop out rate

and not being able to probe particular issues in depth, such as when using an interview methodology. In an ethnographic study of a UK fertility unit, Allan (2005, 2007) comments that the investigation and ART treatment cycle is highly intimate and intrusive for infertile women, as it deals not only with the intimate areas of their bodies, but also challenges their potential inability to conceive. Another qualitative study reports that women experience feelings of anger, resentment, envy and guilt (Gonzalez 2000). When the treatment fails, feelings of powerlessness and lack of control predominate. In these qualitative studies (Imeson & McMurray 1996; Allan 2005, 2007; Redshaw et al. 2007), the women expressed uncertainty and submissiveness to the treatment process.

Most studies focus on women's reactions during treatment but there are others which investigate couples' reactions. In general, findings indicate that women react more strongly than men to infertility and treatment (Beaurepaire et al. 1994; Newton et al. 1999; Lee et al. 2001; Holter et al. 2006). In a longitudinal study by Verhaak et al. (2005), the findings illustrate how the women reacted with increased anxiety and depression after IVF failure, whereas no change was observed among the men. However, the authors did not give any explanation for this difference. Boivin et al. (1998) found that both men and women shared similar patterns in their psychological reactions during the first IVF treatment, although women had stronger reactions. Holter et al. (2006) conducted a prospective study on 117 couples to assess infertile couples' emotional responses to their first IVF treatment and their experiences of marital relationships. Their findings illustrate that women reported stronger emotional reactions to their infertility treatment than their husbands. One reason for this could be that the women were more likely than men to be vulnerable because they had been subjected to hormonal drug treatment and surgical procedures for egg retrieval and transfer, during the treatment process. However, the men reported similar emotional reactions to those of their wives when pregnancy was not achieved. This might reflect that the disappointment and sense of failure to achieve parenthood was shared by men as well as women.

The literature describes the differences between women and men regarding their emotional reactions to infertility and its treatment as inconsistent. Some authors comment that the problem of infertility-related stress is mostly measured by standardized psychiatric measurement, for example, State & Trait Anxiety Inventory (a psychometric instrument to measure anxiety), Beck Depression Index (a psychometric instrument to measure depression) and Profile of Mood Scale (a psychometric instrument to measure mood level), which may limit the specific response to problems represented by infertility and its treatment (Edelmann & Connolly 2000; Yong et al. 2000). The design of these questionnaires may not be sensitive in picking up the specific stress responses that these couples experience. Another possible explanation is due to the differences in the language and coping styles used by women and men rather than the actual difference in the intensity of their reactions (Edelmann & Connolly 2000). Peterson et al. (2003) comment that when studying couples with infertility problems, it is more appropriate to use specific methods of psychometric measurement related to the infertility problem rather than using generic psychometric measurements. The other pitfall of using a battery of questionnaires with repeated measurements is that the respondents may remember how they answered each question from the previous time and then give similar answers. In addition, these couples are very keen to commit themselves to the treatment; it is possible that they would give a balanced impression as good patients which could influence their given answers and obscure the results (Holter et al. 2006). To overcome this limitation, implementing a phenomenological enquiry will elicit the emotional reactions of couples before, during and after treatment.

Research related to psychosocial adjustment and coping during ART treatment

The literature addressing psychosocial adjustment and coping with infertility and its treatment is substantial. Many authors have drawn upon Lazarus and Folkman's (1984) stress and coping theory as a theoretical framework to study the coping strategies among infertile couples undergoing ART treatment (Verhaak et al. 2001; Peterson et al. 2003, 2006, Verhaak et al. 2005; Benyamini et al. 2008; Peterson et al. 2008).

Lazarus & Folkman (1984) define coping as “constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” (Lazarus & Folkman, 1984 p.141). This model regards stress as an ongoing relationship between the person and the environment in which each affects and is affected by the other. The appraisal process involves the immediate cognitive and physical identification of the stress, the immediate reaction (the primary appraisal), the evaluation of the individual’s internal and external resources, and their availability (secondary appraisal). Appraisals are influenced by individual beliefs, values, goals, emotions and that the event is perceived by the individual. The individual then responds to whether the event posed threat, harm or challenge. Lazarus & Folkman (1984) identify two types of coping: emotional-focused coping and problem-focused coping. Emotional-focused coping attempts to regulate emotional distress and to return social and physiological functioning to normal. Problem-focused coping is goal directed and includes strategies such as decision-making and planning to resolve conflict or manage the problem. If the problem is seen as stressful, the person will try to manage it (problem-focused coping) and/or to regulate the distress (emotion-focused coping). A favourable outcome will result in positive emotions and the termination of the coping activity (Folkman 1997). Later, Folkman (1997) revised this model and added meaning-based coping, which includes positive reappraisal of the situation, goal-directed problem-focused coping, spiritual beliefs and practices and the infusion of ordinary events with positive meaning. The shortcoming of this model is that it does not take into account the social and cultural factors that may affect an individual’s perception of threat.

Drawing on Lazarus & Folkman’s transactional cognitive model of coping (Lazarus & Folkman 1984; Folkman and Lazarus 1988; Folkman 1997), several studies have been conducted to examine the coping styles that infertile couples engage in during ART treatment (Schmidt et al. 2005; Peterson et al. 2006). When couples consider ART, they exercise elements of control over whether or not to seek active treatment, but they have little control over the outcome. During the treatment process, they may find themselves using various coping strategies. Schmidt et al. (2005) used a

prospective cohort design involving 1460 infertile couples in Denmark at the beginning of fertility treatment with a 12 month follow up. Data were collected from four public and one private fertility clinics. Data were based on self-administered questionnaires measuring marital benefit, communication and coping strategies. Findings indicated that there were gender differences in marital benefit, as in a fourth of the women and a fifth of the men. Men who used active-confronting coping (e.g. showing feelings, seeking advice or talking to others) were predicted to have higher marital benefit. The men who used active-avoidance coping strategies (to avoid pregnant women and children, to turn to work or other activities in order to take their minds off the issue) indicated a lower marital benefit; however, there were no significant differences among women. The contribution of this study is that it highlights the involvement of men in infertility treatment. In contrast, Verhaak (2001) demonstrates that sexual dissatisfaction among couples undergoing ART increased during treatment, whether the outcome was successful or not. One possible suggestion for the difference may be due to the questionnaire measurement for marital benefits used in Schmidt et al's (2005) study, as the domain of the questionnaire does not cover the respondent's sexual life. Schmidt et al. (2005) do not provide possible explanations for the differences. The use of pre-determined questionnaires limits the scope to explore the coping process deployed by couples.

A literature review conducted by Greil (1997) and Jordan & Revenson (1999) highlights that the majority of studies on coping styles and strategies are based on individual men or women as a unit of measurement, and that there was a lack of use of couples as a unit of analysis. These studies highlight men and women's individual coping styles but fail to indicate the impact that one partner's style has on the other's. In response to this, there have been an increasing number of studies undertaken using couples as the unit of analysis (Berghuis & Stanton 2002; Peterson et al. 2003; Peterson et al. 2006). These studies consistently show that infertility affects both partners of the couple and that each partner's coping response impacts on the other's response.

In a prospective study conducted by Boivin & Schmidt (2005), 818 couples undergoing infertility treatment for the first time in Denmark, were given the Fertility Problem Inventory at the beginning of the treatment and 12 months afterwards. The Fertility Problem Inventory is a questionnaire which examines the separate and joint effects of male and female fertility problem (FP) stress and the source of stress (e.g. personal, social and marital) on the treatment outcome. In terms of the reliability, the Cronbach's alpha was 0.87 (for women) and 0.85 for men, respectively. Their findings indicate that negative psychological states and traits are related to treatment success and are more pronounced for women than men, particularly when the source of stress is personal or marital rather than social. The findings also indicate that male stress does play a part in treatment failure too, albeit a weaker one than that of women. Women experience more stress at a higher intensity than men, the authors comment that this is possibly due to their greater involvement in the pregnancy and labour. This is consistent with other findings in relation to the gender differences in infertility distress (Greil, 1997).

Peterson et al. (2009) attempted to study the interactions between partners using the Actor Partner Interdependence Model (APIM) (Kenny et al. 2006) to examine the longitudinal impact of partner coping in men and women undergoing fertility treatment. They examined the impact of four types of coping: active-avoidance strategies (e.g. avoiding pregnant women or children), active-confronting strategies (e.g. showing feelings, asking others for advice), passive-avoidance strategies (e.g. hoping for a miracle) and meaning-based strategies (e.g. growing as a person in a good way, finding other goals in life) (Peterson et al. 2009 p.1657). Their findings confirm that active and passive avoidance coping are consistently associated with personal, social and marital distress for the individual and their partner and that meaning-based coping strategies are more beneficial for women than for men, at both individual and partner levels. Men appear to experience greater marital distress when their partner uses active-confronting coping. The increased marital distress may be related to the woman's major focus on the infertility treatment and outcome in which the men have no control. Findings also found that when a woman uses meaning-based coping, it has a beneficial effect on her personal and marital distress as well as

on her partner's marital distress. As Folkman (1977) states, meaning-based coping sustains the coping process by generating positive emotions. Therefore, decreased marital distress may be related to a woman's expanded focus on other life goals which remove her focus from her infertility problem.

Psychological studies have added to the existing knowledge regarding the impact of partners in coping with infertility and ART treatment. However, in the case of the Copenhagen Multi-centre Psychological Infertility (COMPI) scales by Peterson et al., (2008, 2009), the scales have not yet been validated in large-scale psychometric studies and this limits their validity and reliability. The experience of infertility and ART treatment and its impact on both men and women is embedded within the personal, social and cultural context in which couples live, and the influence of society towards reproduction and childbearing. The use of instruments (questionnaires) may limit the scope of the findings. Therefore, using the phenomenological approach to explore the experience and impact of infertility and ART treatment on couples, enables a deeper understanding of what contextual factors influence the couple's coping response to the treatment.

Research related to social support during ART treatment

Several studies show that women are more likely to seek social support than men (Knoll et al. 2007), and are also more likely to talk about their infertility problems. Jordan and Revenson (1999) conducted a meta-analysis of studies from 1966-1995 on gender differences in coping with infertility. All the studies used the Ways of Coping questionnaires developed by Folkman & Lazarus. They found that women seek social support more than men. In relation to the support within the couple, Knoll et al. (2007) conducted a quantitative study in Germany to examine the affect and enacted support in couples undergoing IVF. Instrumental support entails tangible help such as help with everyday chores and emotional support entails reassurance. Sixty six couples from two German fertility clinics were invited to complete the self-reported affect scales and social support scales at three time points: upon oocyte and sperm collection, after embryo transfer and following the first pregnancy test (3

weeks after the treatment outcomes were known). Findings indicate that there are gendered differences in which women seem to benefit from the provision of emotional support and men seem to benefit from the provision of instrumental support. The limitation of this study is the limited size (n=66), which might affect its power in statistical analysis on quantitative data. In addition, the design does not examine the supportive process which occurred between the couples. To understand what supportive activities were undertaken or received by the couples during the treatment process and how, a qualitative study will add rich description and insight.

Glover et al. (2009) conducted a qualitative enquiry into the meaning of fertility problems for couples and how partners differed in their appraisals of their fertility problems. Ten couples were recruited from an infertility clinic in the UK to take part in semi-structured interviews. The findings indicate gendered differences in the meaning of pursuing parenthood, but were inconclusive about whether it was due to women favouring the nurturing part of parenthood or men feeling under pressure to protect their family line. In response to the appraisals, there was no evidence to suggest that men and women appraised infertility differently. This study also highlights the gendered differences in the amount, nature and purpose of communication. The strength of this study was that the participants included both men and women. However, the couples were interviewed together in a semi-structured interview and this could have hindered the other partner expressing their view. My study involved interviewing both husband and wife jointly, as well as individually, which overcame the problem of a dominant or silent partner when expressing his/her views (see Chapter 3 section 3.4).

Professional support provided during infertility treatment has also been researched. The role of the infertility nurse in the ART clinic has been studied to provide an insight on how the nurse cares for clients undergoing treatment (Allan 2001, 2002, 2005, 2007, 2009). Allan (2001) conducted an ethnographic study on women and nursing staff in a UK fertility unit. She found that women in the clinic experienced powerful emotions as a result of infertility and its treatment. She comments that the women did not always want emotional involvement from the nurse (Allan 2002).

She further states that the staff in the fertility unit tended towards 'hovering' and 'being there' to support the patients in dealing with the uncertainty of the treatment (Allan 2005). In her recent work, Allan (2009) highlights how the fertility clinic provides a space in which infertile women can manage their private experience of infertility and tolerate the uncertainty of ART treatment. She illustrates how British women undergoing ART are being supported and how the clinic also acts as a place to tolerate the uncertainty and chaos that the treatment causes. Her study emphasizes the emotional effects of infertility on women and the importance of infertility nurses in supporting these emotions within the clinic environment. The strength of her work enhances the understanding of emotions experienced by clients as well as the nurses who care for them and her research delineates the expanding role of infertility nurses. The shortcoming of the result is that it focuses mainly on women participants and the voice of the male participant is not addressed. Based on Allan's work, Payne & Goedeke (2007) conducted a qualitative interview with 15 infertility nurses in New Zealand. The over arching theme for the role of the nurse was to 'hold together' the provision of information, interpretation, support and advocacy for the clients. The limitation of their study is the self-selected nature of the nurse participants who may have bias or agendas that other infertility nurses may not share. These studies identify the specific role that the infertility nurse has in providing care. However, the nature and type of supportive care activities that couples need during ART treatment is still unknown. Therefore, a qualitative enquiry from the couples' perspectives about the supportive care activities that would be appropriate in order to provide couple centred infertility care, is suggested.

1.3 The impact of ART treatment

Research related to the impact of ART treatment on marital relationships

Researchers have examined the impact of ART treatment on couples' relationships. From the literature review, it is clear that the majority of studies focus on examining the marital relationship, marital satisfaction and sexual functioning in relation to the treatment. Quantitative studies report different findings and results. The majority of

studies use pre-existing scales, for example the 'ENRICH marital inventory' developed by Fowers & Olson (1989) to examine personal issues, communication in marriage, conflict resolution, financial management, leisure activities, sexual relationships, children and parenting, family and friends, egalitarian roles and concepts of life. In one Swedish study conducted by Sydsjö et al. (2005), the researchers use the Swedish version of ENRICH marital inventory to measure the couples' dynamics during IVF treatment cycles. This longitudinal study shows that the couples' relationships were not affected during and after the treatment or by disappointment from the unsuccessful result of not getting pregnant. The result does not confirm the previous earlier study by Slade et al. (1997) whereby women showed greater dissatisfaction with their sexual relationship and greater emotional distress from an unsuccessful treatment outcome. Hammarberg et al. (2001) found no differences in marital satisfaction in women between successful and unsuccessful treatment or at a follow up study 2-3 years after treatment, and 37% reported that IVF treatment had had a positive impact on their marriage.

Holter et al. (2006) conducted a prospective study on 117 couples using the Psychological General Well-Being index to measure the general wellbeing of the participants before, during and after treatment and a visual analogue scale to evaluate the respondents' perceptions of the importance of having a child and the effects of childlessness. They used 14 item questionnaires developed by Anderheim et al. (2005) to measure the psychological effects of infertility and two structured questions to measure the relationships with their partners. The results indicate that both women and men's emotional reactions relating to the first IVF treatment were dependent on whether or not they achieved a pregnancy. The women reported stronger emotional reactions to their infertility than their husbands. However, the men reacted with the same negative emotional pattern as their wives when pregnancy was not achieved. The findings also demonstrated that for most couples, IVF treatment did not have any negative impact on their marital relationship during the period of treatment, independent of the outcome. However, caution needs to be taken when interpreting these findings, as the measurement is based on only two structured questions and the study focuses on the first cycle of IVF treatment. Another study, by

Verhaak et al. (2005), reported that unsuccessful IVF/ICSI treatment was a predictor for decreased satisfaction with the marital and sexual relationship.

Repokari et al. (2007) and Peterson et al.'s (2003) studies suggest that shared stress, bereavement and disappointment during ART treatment can increase a couple's feeling of cohesion and therefore result in an improvement in their marital relationship. Pasch et al. (2002) share similar findings where the marital relationship was better when both spouses had a shared commitment to infertility treatments and both regarded having a child as important.

A longitudinal study conducted by Peterson et al. (2009) examines the impact of partner coping following five years of unsuccessful fertility treatment. The author and his associates focus on examining marital distress (e.g. stress placed on the marriage, stress on sexual relations) rather than on marital adjustment or satisfaction for the couples having infertility treatment. Their findings indicate that women reported greater levels of personal distress compared to men and confirm that active and passive avoidance coping are consistently associated with poorer personal outcomes for the individual and their partner. Meaning-based coping strategies are more beneficial for women than for men. The authors further comment that the findings are difficult to compare with other studies that focus on marital adjustment and satisfaction rather than distress.

In summary, the findings regarding the effect of infertility and ART treatment on marital relationships and marital satisfaction are mixed (Greil, 1997). Some authors argue that it is the differences in men and women's emotional wellbeing and their coping reactions to infertility treatment, rather than the infertility itself, which have a negative effect on the marital relationship. Recent research attempts to address the marital relationship from both partners' perspectives rather than just on women or men alone. The problems in the quantitative studies illustrated above are of sample size and the construction of the questionnaire measurement. Several studies (Holter et al. 2006; Verhaak et al. 2007; Wang et al. 2007) report a high dropout rate at various stages during the treatment which consequently affects the sample size. This

obviously has an effect on the statistical power of the quantitative data obtained. In addition, the pitfall of using predetermined questionnaires (instruments) is that they failed to measure the specific effect of ART treatment on the marital relationship. All these factors limit the scope of the result. Therefore, the use of a qualitative approach will enable the exploration of couples' interpretations and the meanings of ART treatment and its outcome, as well as how the couples' marital relationships can change during and after ART treatment.

Research related to the effects of ART treatment outcome

Franklin (1997) conducted an ethnography of couples undergoing IVF treatment in assisted conception clinics in the UK. She explored couples' perceptions of risk and success in IVF programmes, their participation in the treatment and their expectations. Her study highlights IVF treatment as an experience that "takes over" and becomes a "way of life" (Franklin 1997 p.131) and the physical and emotional demands that are associated with the treatment. The couples felt that they were desperate and had to try and were ambivalent towards the uncertainty of the outcome of the treatment. They confronted themselves, as they had to explore all possible options.

McCarthy (2008) conducted a hermeneutic-phenomenological study on 22 women in United States to explore their experience of infertility after unsuccessful medical treatment. Hermeneutic phenomenology is an approach to examine meaning in the participant's lived experience in the context of culture and tradition. She shows how "living an existential paradox: searching for hope in light of lost dreams" (McCarthy 2008 p.321) captures the woman's life journey embarked upon after unsuccessful treatment. "Under this mega theme, she identifies six meta-themes: revisioning self in life's context, revisioning the world in life's context, experiencing isolation, permanent presence, choosing to let go and creating a different kind of life" (McCarthy 2008 p.321). She uses the word 'revisioning' in the sense that infertile women review their own sense of self in the context of infertility and how the experience of infertility alters their perspectives on how the world functions. The

existential experience reflects how these women were committed to searching for new meaning, particularly with reference to a spiritual search in order to reframe their life and their awareness of their personal freedom. The findings also highlight how the nature of their loss in infertility has an intangible quality, that is, the loss of a dream, the loss of a hoped-for child rather than actual loss; their grief is private, which adds to the isolation of women's experience. Again, the study focuses only on women's perspectives and there is a gap in addressing the woman's spouse or partner's experience and their social network and resources in relation to unsuccessful treatment.

Quantitative studies also attempt to examine the long-term psychological adjustment to IVF/ICSI treatment. Verhaak et al. (2007) conducted a prospective study of 298 women entering the first IVF treatment cycle (including ICSI) using standardized psychological questionnaires. Their findings also share similar results: that women who focused on new life goals adjusted well and showed lower levels of anxiety and depression than those who persisted in their attempts to get pregnant. Hammarberg et al. (2001) conducted a follow up study using self-report questionnaires on 229 infertile Australian women. The findings show that women who did not have a baby were more critical about the clinic and more negative about the IVF treatment, but did not regret having tried IVF. This might reflect their strong feelings that everything had to be tried in order to have a child, given the driving force for IVF treatments. The women also expressed their difficulty in talking about infertility and how they tended not to reveal that they were having IVF treatment, even though they thought that their family and friends had no objections. The findings also indicate that unsuccessful IVF does not appear to have long-term detrimental effects on marital relationships.

Other studies examine the factors for discontinuing ART treatment (Malcolm & Cumming 2004; Dawson et al. 2005). One Swedish study undertaken by Olivious et al. (2004) reports an unexpected drop out rate of patients before the end of the three cycles that are offered to couples. The most common reason for discontinuing treatment before having received two or three free cycles is the psychological

burden. This includes several earlier failed treatments, late miscarriage or legal abortion due to fetal chromosomal abnormalities in previous IVF, seeing different staff at each visit, feeling pressure to succeed in the treatment and poor prognosis.

1.4 Building on existing research on ART treatment

The present literature

The **medical literature** contributes to the aetiological, diagnostic and clinical management of infertility and ART treatment (Balen & Rutherford, 2007; Drakeley et al 2008; Verberg et al., 2009; Devroey et al. 2010). These studies are problem-based and evidence-based, but they often fail to convey the understanding that infertility and ART treatment is primarily existential and is a lived experience which affects the person as a whole. The earlier literature, written in the 1960s and 1970s, also commits the grave error of “blaming women for infertility” and concentrates disproportionately on “women’s unresolved psychological problems” as a cause of infertility (Olshansky 1996). Although with advances in diagnosis and technology, there are more pathological causes of infertility found both in men and women, the term “psychogenic infertility” which focuses directly on women rather than men, is now rarely used. However, such misunderstanding still persists in some non Western pronatalist societies (Dyer et al. 2002; Inhorn & Van Balen 2002).

The **psychological literature** contributes by regarding infertility (and its treatment) as a kind of stress. This kind of approach is not without problems because it focuses on the negative rather than on the positive aspects of the experience. Early studies focus on the anxiety and depression in response to ART treatment, as well as the coping styles of men and women dealing with infertility treatment. The criticism by Greil (1997) and Jordan & Revenson (1999) is that increased research is needed to examine coping, using the couple for analysis rather than the individual. Recent studies by Peterson et al. (2008, 2009) have attempted to explore the longitudinal impact of partner coping in men and women undergoing infertility treatment.

However, the Copenhagen Multi-centre Psychosocial Infertility (COMPI) scales used in their studies have not yet been validated in large-scale psychometric studies. The present literature review (see sections 1.1, 1.2 and 1.3) discusses the pitfalls of using predetermined scale measurements and consequently limiting the scope to discover the ways that couples engage in managing their infertility and ART treatment. Nevertheless, these studies increase existing knowledge on the impact of infertility and how ART treatment affects both partners of the couple.

Ethnographic studies contribute to understanding the social context of infertility and the effects of ART on culture, society and kinship, for example, the work of Franklin (1997), Kahn (2000) and Inhorn (2003). Their work focuses on the contemporary attitudes to ART and its use by women in specific religious and cultural contexts. Inhorn (2003), Remennick (2000) and Riessman (2000) explore the stigma attached to childlessness as well as to infertility treatment. These studies have shown how ART has been shaped and moulded by current social, cultural and religious practices (Bonaccorso 2009). Those that have emerged from the non-Western populations focus primarily on the cultural experiences of infertile women.

Within **nursing literature**, the interest in infertility and ART has become increasingly more explicit by those aiming to extend and refine its knowledge base. Earlier nursing scholars have contributed theoretical models of infertility. Olshansky (1987, 1988, 1990, 1996) has been steadily developing a theoretical model of taking on and managing an identity of self as infertile. Sandeloswki (1995) has expanded her work to study the parenthood of infertile couples, Draye et al. (1988) and Draye (1995) have inspired the idea of exploring the gendered aspects of infertile couples' experiences. The majority of nursing research focuses on the psychosocial responses of infertility and ART treatment (Imeson & McMurray 1996; McCarthy 2008; Allan 2002, 2005, 2007, 2009), some on aspects of infertile couples (Draye et al. 1988, Phipps 1993; Glover 2009) whilst others on those of pregnancy and parenting after infertility treatment (Olshansky 1990; Sandeloswki 1995). Others again, examine counselling approaches and assisting actual ART procedures (Rapport 2002).

Bridging the gap

In this chapter, I have reviewed the current literature related to gender perspectives of infertility and the nature of ART treatment within social and psychological perspectives. I have argued that the majority of research is conducted on women, although studies conducted on men have increased. The empirical research on couples having ART treatment focuses on individual stress reactions rather than addressing genuine dyadic stress. Although there are a few studies using dyadic conceptualizations of stress models to study the coping process, there are limitations to using standardized instruments to study the existential meanings of ART treatment on couples. A few researchers have addressed the existential experience of those whose ART treatment has failed (McCarthy 2008). Allan's (2009) important contribution identifies the powerful emotion that infertile women have and how infertility nurses should be emotionally aware of the needs of these women. However, while her most recent work (Allan 2007) opens up an understanding of how infertile women experience uncertainty within the ART treatment context, the limitation of her study is that it is still mainly focused on women. There is a need to examine how the couple responds to having ART treatment. Most of the studies are conducted in Europe with a Caucasian population. To date, no enquiry has been undertaken into the existential experience of infertile Hong Kong Chinese couples undergoing ART treatment. The social and cultural background in Hong Kong also provides an interesting aspect to this study. Hong Kong enjoys freedom in the number of children that couples are allowed to have, whereas Mainland China imposes a One Child policy to restrict reproductive choice (see Chapter 2, section 2.2). Does this cultural freedom influence the way Hong Kong Chinese couples perceive their infertility issues and consequently, the outcome of ART treatment? Furthermore, there is very limited literature addressing the couple as a unit of analysis in ART treatment research. Infertility affects couples, not only individual men or women. A description of Chinese couples' perceptions and experiences of ART treatment is lacking. The literature review confirms the need for qualitative inquiry into the meanings of infertile Chinese couples having ART treatment.

In Chapter 2, reproduction within the Chinese context will be reviewed. The aim is to provide a social and cultural background to enhance the interpretation of the results detailed in Chapters 4, 5, 6 and 7.

Chapter 2

Chinese socio-cultural dimensions of infertility and ART treatment

Introduction

Across culture and across time, fertility or having one's own child has been one of the most basic human experiences (Burns 1987; Daniluk 1988; Gerrity 2001; Van Balen & Bos 2004). The meaning of fertility (and therefore infertility) is embedded in the underlying beliefs and culture in which it is situated (Becker 1994; Van Balen & Bos 2004; Becker et al 2006). It is important to understand how cultural traditions and health beliefs have defined infertility and reshaped current ART treatment. The aim of this chapter is to provide a background understanding of infertility and ART treatment under the influence of Chinese philosophical traditions including Confucianism, Taoism and Buddhism. In the first section, infertility and ART treatment within the Chinese context are reviewed. In the second section, the cosmos concepts behind traditional Chinese medicine are briefly described. In the third section, historical and socio-structural factors influencing the health beliefs and practices of Hong Kong Chinese people are also presented. This review provides a social and cultural background to understanding current Chinese views on reproductive behaviour in Hong Kong.

2.1 Infertility within the Chinese context

The reproductive behaviour of Hong Kong Chinese people has been mainly influenced by traditional doctrines from the teachings of Confucianism, Buddhism, Taoism and to some extent, Christianity. The teachings of these doctrines reach far beyond the confines of this chapter. However, I will attempt to draw on specific aspects that have influenced reproductive behaviour.

Confucian doctrine

Confucius (K'ung Fu-tzu) was an ethical philosopher who lived in China about 2500 years ago. He was a great philosopher during a time of social and moral turmoil. His teaching focuses on harmony and humanistic virtues, and is based on the two human qualities: *jen* (loving kindness) and *li* (propriety). Billington (1997) states that *jen* embraces the virtue of fulfilling one's responsibilities towards others and *li* embraces individuals' obligations to one other; the key element of *li* is the fulfilling of one's duty, particularly to parents and family. This quality can be translated as righteousness, honesty and uprightness. Confucius also taught that there are five relationships (*wu-lun*), which together form the basis of human interaction (five constants). The constants are *jen*, *li*, *yi* (righteousness), *chib* (wisdom or insight) and *hsin* (trust) and by observing *wu-lun*, people and society may coexist in harmony (Billington 1997 p.123). The five relationships are father and son, husband and wife, older brother and younger brother, older friend and younger friend, and ruler and subject. In each relationship, the first named is considered the dominant (*yang*) role and the other the submissive (*yin*). Qiu (2001 p.77) comments that Confucian teaching also reflects some strong sexist views, for example, the concept of *san cong* (three types of obedience) for women, that is obedience to one's father before marriage, obedience to the husband after marriage, and obedience to the son after the husband's death. In this context, a husband can divorce his wife on the basis of what is perceived as her infertility.

An understanding of filial piety may help the reader to understand the underlying meaning of filial obligation in reproduction and hence the implications of infertility. Chao (1983 p.72-73) states: "the word *filial piety* refers in general to punctiliousness in the performance of duties naturally owed to parents and relatives." Filial piety, as interpreted by Confucians, means that children must please, obey and support their parents while alive, mourn and ritually serve them after their death. Menicus (*pinyin*: *Meng Zi*) was a famous Chinese philosopher. He was a pupil of Confucius' grandson, Zisi. The Book of Menicus is a collection of dialogues by Meng Zi. His description of filial piety has three implications: to support and wait upon parents, to respect

parents and to reproduce posterity by continuing the parents' lineage. In the book of Menicus, Meng Zi's well-known traditional teaching "*Bu xiao you san, wu hou wei da*" (there are three things which are unfilial, and to have no posterity is the greatest of them), implies that not having descendants is the worst violation of filial piety of all. Infertility studies conducted in Taiwan have also shown that having no heir is the gravest offence (Lee 1996; Lee & Kuo 2000; Lee & Chu 2001). As Chu & Yu (2009) describe, the significance of filial piety is to continue the parents' lineage, which constitutes the moral requirement to have sons. In this tradition, having children brings meaning and satisfaction, and grown-up children mean financial support for the aging parent. Confucian teaching on filial piety has exerted great influence on Chinese reproductive behaviour and has played a significant role in formulating the Chinese pro-natalist tradition. The pro-natalist society emphasises that a person's social value is linked to procreation (Ulrich & Weatherall 2000). Living in such a pro-natalist society, people, in particular women, who experience infertility, often suffer from psychological and social pressure.

Ancestral tradition and Confucian filial piety have influenced Chinese people towards a strong preference for sons in childbearing. Traditionally, the son carries the family name whereas the daughter adopts her husband's name after marriage. Couples feel obliged to bear a male heir for the family. In the traditional family genogram (similar to the family tree that states all the ancestors' and relatives' names) in the ancestral halls, only the names of sons and grandsons are listed. Daughters are not even counted, as they change their surname once they get married, whereas sons keep their surname and continue their family line (Chan et al. 2002). Population studies also support evidence of son preference patterns in China and other Asian countries (Poston 2002). Elisabeth Croll's work, *Endangered Daughters: Discrimination and Development in Asia* (2000) illustrates how millions of "missing girls" were never born or died as a result of son preference-daughter discrimination in India and China. According to Croll (2000), the notion of son preference is culturally complex. She describes filial piety and the obligation to produce sons, not daughters, to worship the ancestors and carry on the family line. In marriage, sons remain in the family and are perceived as being of economic value. Her work

reiterates chilling contemporary evidence of high female mortality through the use of ultrasound and assisted or sex-selective termination (Inhorn & Van Balen 2002).

Contemporary social changes in China have also reshaped the traditional Confucian way of moral duty. An ethnographic study conducted by Yan (2003) in Xiajia village from 1949-1999, highlighted the role of individual rights and the socialist state in transforming family life. In his study, women experienced fundamental change from the role of subordinate to equal partner in a companionate marriage. Yan (2003) comments that the transformation has led to a declining filial obligation and filial respect of their parents in the younger generation and a greater emphasis on individual rights. Consequently, there has been a shift in intergenerational power relations. The rising power of daughters-in law in family life has led to more married daughters looking after their own parents and there has been an increasing preference for the elders to choose co-residence with their daughters instead of their filial sons (Yan 2003).

Taoist doctrine

Taoism focuses on human life in nature. The philosophy is traditionally regarded as that of Lao Tzu. As Koller (2002 p.288) describes:

“Life is lived well only when people are completely in tune with the whole universe and their actions are the action of the *Tao* flowing through them. The purpose of knowledge is to lead a person to a unity with the universe by illuminating its *Tao*, or Way. The word *Tao* refers to a path or a way, and in Taoism it means the source and principle of the functioning of whatever exists”.

According to Lao Tzu, good is not driven by personal desire but by non-action (*wu-wei*) as *tao*. This means doing nothing except what spontaneously and freely exists in nature; for example, a bird's *wu-wei* is to fly, attempting to crawl would be a forced action (Koller 2002 p.290). If people force the fulfilment of their own desire, it works against nature and leads people towards greed and corruption. Lao Tzu recommended that people should adopt the way of *Tao*, not inflict their desires upon nature but follow nature's principles. Taoism stresses purity and balance with nature

through meditation and a simple life. People should attempt to achieve this sense of balance with nature and society by avoiding conflict and living in harmony. If a course of action is blocked, Taoism stresses the way of finding alternatives rather than persistently fighting to achieve one's own desire. When a person has fertility problems, Taoism stresses the natural course of action. If the infertility treatment is not successful, Taoism focuses on the acceptance of the outcome, whether it is successful or unsuccessful. One should not persistently pursue the treatment for the sake of achieving one's own desire for a child.

Buddhist doctrine

Buddha taught about the Four Noble Truths. Koller (2002) describes the four common components of these in terms of what suffering is: the condition arising from suffering, how suffering can be eliminated by eliminating the conditions and that the way to remove the conditions that give rise to suffering is to follow the Middle way.

The first three Noble Truths are related to suffering. At the first level, pain is associated with life, death, sickness, the presence of the unpleasant and the absence of the pleasant. All these sufferings are part of the human condition. At the second level, it focuses on the resistance to change that causes the sufferings. At the third level, people can liberate themselves by getting rid of the desire to control things and being free of any selfish cravings and fear. The philosophical teaching of Buddha has made an impact on Chinese people in the way they perceive illness and life events.

Buddhists also believe in the cycle of birth, death and rebirth, and that every living being dies and is reborn. In Buddhist teaching, human beings and other life forms do not have permanent, existing souls, rather each consists of a temporary combination of force and energies. People with Buddhist beliefs may consider infertility as a retribution for wrong doing either by the man or the woman in their past life or even by their ancestors who might have led an immoral life. With this belief, if a man does something wrong in his current life, he will have no offspring in his next life as

punishment (Qiu 2000). Pain and suffering are associated with desires and the only way to lead an enlightened life is to detach and let go of all these desires, in this case, the desire to have a child.

Christian doctrine

Although the spiritual beliefs in Hong Kong have primary roots in Confucian, Buddhist and Taoist philosophies, the Western influence also plays a part in that a proportion of Hong Kong Chinese people are Protestant and Catholic. I would like to highlight the Protestant and Catholic doctrines in relation to infertility and ART treatment.

In Christianity, the religion focuses exclusively and mutually to marriage as the image of the relationship between Christ and the church. The involvement of medical intervention in achieving procreation can be seen as defeating this purpose (Dutney 2007).

For the Roman Catholic, the Vatican's statement makes it clear that it does not accept ART as a method of procreation. Pope John Paul II's (2004) address to the participants of the Plenary Assembly of the Pontifical Academy for Life well emphasizes this:

"...in the procreation of a new creature is its *indispensable bond* with spousal union, by which the husband becomes a father through the conjugal union with his wife, and the wife becomes a mother through the conjugal union with her husband. The Creator's plan is *engraved in the physical and spiritual nature* of the man and of the woman, and as such has universal value" (21 February 2004 n. 2).

According to the Catholic doctrine, there is no absolute right to parenthood and a child is a gift from the Creator. Infertile Catholic couples should not claim the right to be parents or undermine marriage or family through seeking to become parents through assisted conception. The doctrine regards pre-embryo as a human from the

stage of conception and any deliberate destruction of an embryo is forbidden (Schenker 1992; Dutney 2007).

For the Protestant, the church's traditional treatment of infertility and assisted reproductive technologies are acceptable only if the gametes are from the married couple and the procedure avoids damage to the pre-embryo.

The different religious beliefs have been described in relation to reproductive behaviour. Chinese attitudes to infertility and assisted reproduction are influenced by life-preserving or health promoting reproduction and pleasure (Qiu 2001). The Confucian doctrine emphasises life-preservation or health promotion, as this is in line with filial obligation, and rejects sex as pleasure. Buddhism emphasizes the meaning of suffering and interprets infertility as the result of mistreating or aborting children in a previous incarnation. Catholicism emphasises the sacrament of matrimony in man and woman. ART treatment has become a common practice for treating infertility. Schenker (1992) comments how different religious doctrines impose different views on the therapeutic approach to infertility. There are also critics who emphasize the universal declaration of human rights where each individual has the right to make their own decisions regarding his or her reproduction. Inevitably, there is an ambiguous dilemma confronting infertile couples and how far they respond to religious doctrine is reflected by their own religious beliefs and choices. On the other hand, Latifnejad et al. (2008) argued that religion and spiritual beliefs could empower infertile women. Using a grounded theory approach, Latifnejad et al. (2008) interviewed 30 women affiliated to different denominations of Islam and Christianity at one Iranian and two UK infertility clinics. Their findings indicated that religion and spiritual beliefs gave the infertile women self empowerment and provided religious coping resources such as prayer and a holy book to support them in coping with the demands of infertility and its treatment.

I have attempted to give an overview of the teachings of Confucianism, Taoism, Buddhism and Christianity in relation to reproduction. These various theories are important as they give an understanding of how spiritual and religious beliefs are

imposed on the ideology of reproduction and ART treatment. Although Latifnejad et al. (2008) illustrate how religion and spiritual beliefs are beneficial to infertile women, the influence of these on infertile couples still needs to be explored. The phenomenological enquiry of this study reflects the spiritual dimensions of the couples while embarking on the treatment.

2.2 Hong Kong cultural context

In 1997, Hong Kong was returned to Mainland China. Under the Basic Law of the Hong Kong Special Administrative Region of the People's Republic of China (Hong Kong Basic Law), the policy of 'One country, two systems' (see Glossary) existed whereby Hong Kong maintained a high degree of autonomy with regard to its political, legal and healthcare systems. The aim of this policy was to enable the smooth transition of Hong Kong back to Mainland China. Under this 'One country, two systems' policy in Hong Kong, there are no restrictions on the number of children allowed, compared with Mainland China, where there is still a variable enforcement of the One Child Policy to control the population.

Traditionally, childlessness is not only associated with a lack of filial piety, but also with the discontinuation of the family line, a less good future and the insecurity of old age (Lee and Kuo 2000; Lee and Chu 2001). In ancient times, when a couple was childless, it was almost always assumed to be a female problem unless there was obvious abnormality of the male genitals, as a result of injury, for example. The husband of a 'childless' wife could divorce her or take a second wife who could bear children (Qiu 2001; Chan et al. 2002). Nowadays, when male-factor infertility can be identified, the public is more aware that men, not just women, can be the cause of childlessness. The degree of openness and acceptance of being labelled 'childless' for men and women is still yet to be known.

There are both cultural and biological drives towards having one's own child in Hong Kong, but the demands of modern society place restrictions on the number of

children and the timing of having them. In a survey carried out by the Family Planning Association of Hong Kong (2007), among fertile women, only 13% desired to have a child or another child, while over 80% did not, 40% of women married for 4-5 years still had no children and 15% of married women without children were in the age range of 35-39. The respondents gave the heavy financial burden, being too old and having too much responsibility when raising children as their main concerns. In addition, the survey also reflected that higher education attainment and long working hours for women were associated with women deferring pregnancy, even their desire for motherhood.

According to the Human Development Report (2009), the total fertility rate (see Glossary) indicates a continuous decreasing trend for Hong Kong falling from 1.3 in 1990-1995 to 1.0 in 2005-2010. In Mainland China, the total fertility rate was 2.0 in 1990-1995 and 1.8 in 2005-2010. There have been different speculations on how to explain the decreasing trend in China after the One Child Policy (Hesketh et al. 2005; Ding & Hesketh 2006). Hesketh et al. (2005) attempted to evaluate the effect of the One Child policy after 25 years of implementation. They concluded that the policy has affected the ratio of men and women, the ratio between adult children and dependent elderly parents and has caused potential social consequences of gender imbalance and problems with care of the elderly. Recently, the Chinese government acknowledged the potential threat of gender imbalance and the increasing elderly population. They have attempted to use publicity campaigns to promote having girls. In contemporary Hong Kong Chinese society, the small family culture has already been well accepted. However, there is a mixed picture as to whether couples prefer sons or daughters. Chan et al. (2002) highlights the traditional preference for sons in China and addresses the cultural and social implications of gender preference in Chinese society. The traditional view that a boy will be the main financial support and provide for his parents in old age has changed. The benefits of having girls provide a more equal society and women are not oppressed.

Lo (2005 p.4) uses the term “transitional Chineseness” to describe the complexity of post-colonial Hong Kong culture with Mainland China. This study reviews the

possible tensions between more traditional and contemporary values for attaining parenthood and in pursuing ART treatment.

2.3 Hong Kong Chinese health beliefs and treatment-seeking behaviour

As described in Chapter 1, infertility carries connotations of stigma that affect both men and women when seeking fertility treatment. Qiu (2000 p.78) comments that “any intervention involved in natural reproduction is not desirable as it disturbs the *dao* (natural way) of nature, yet it is still more acceptable than being without any offspring.” Once a couple becomes aware of their infertility problems, they begin to seek infertility treatment. In Hong Kong, couples with fertility problems have the choice of choosing Western ART treatment as well as Traditional Chinese medicine (TCM). The philosophy of Western medicine is different from Chinese medicine, which focuses on the holistic integration of mind, body, soul and spirit. Some of the concepts of Chinese medicine are introduced below therefore, as these provide a background understanding of how the Chinese relate to health and illness.

‘Traditional’ Chinese health concepts

The Chinese understanding of nature and the cosmos is expressed through three important philosophical concepts. I will briefly describe these so as to enable the reader to understand the meanings behind the couples’ choice of treatment.

Qi

Qi is the name given by the Chinese to the energy which circulates in the meridians or channels. Traditional Chinese Medicine identifies twelve main channels in the human body through which *Qi* moves. *Qi* facilitates communication between organ systems and between interior and exterior parts of the body. Health implies that the *Qi* is flowing naturally and normally within the body organs. This *Qi* can be assessed

by feeling the pulse. According to TCM theory, illness arises when the flow of *Qi* in the meridians has become blocked. Lyttleton (2004) describes the movement of *Qi* as facilitating the movement of eggs from the ovaries to the uterus, so any obstruction of *Qi* will affect ovulation and menstruation.

Yin and Yang

Yin and *Yang* are fundamental concepts in Chinese medicine. Health and illness is determined by the fluctuations of these conflicting forces. The earliest meaning of *yin* and *yang* was in reference to the sun. The side facing the sun is *yang*, while the side against the sun is *yin*. The duality of *yin* and *yang* is thought of as an integral part of the universe. Nature is expressed in dual form: north and south, darkness and light, cold and heat, wetness and dryness and so on. When *yin* and *yang* is applied to living things, *yin* symbolises femininity, receptiveness, submissiveness and softness and *yang* symbolises masculinity, superiority and positivity (Billington 1997; Cheung 1997; Gao 1997). Billington (1997) states that the *yin* and *yang* principle is to complement each other and not to judge whether one is more important or superior than the other. Both men and women have *yang* and *yin* qualities. He further argues that the battle of sexes is primarily due to the tendency of both sexes to value *yang* over *yin* and that both have ignored the true nature of universe. This is an interesting way of addressing the stereotyping of men and women.

The balance of *yin* and *yang* is always in a state of change, based on the internal and external environment. The bodily functions respond to the interaction of *yin* and *yang*. When they are in harmony, the body is in healthy state, when they are imbalanced, illness occurs.

Wu-hsing (Five elements)

The concept of the five elements refers to water, fire, wood, metal and earth. The elements foster balance and harmony with each other. As the human body is part of nature, the five elements are physiological equivalents to the five most important

organs in the body which determine the functions of all other body systems, including the emotions. For example, wood is related to the liver and gall bladder, fire is related to the heart and small intestine, earth is related to the spleen and stomach, metal is related to the lungs and large intestines, and water is related to the kidneys and urinary bladder. All the elements depend on one another and nourish each other for growth and support. For example, water or the kidneys support growth, earth or the stomach/spleen system can dam water/kidneys, thereby controlling the natural or physiological excess of water. As one element or physiological system nurtures and controls another, balance is maintained (Gao 1997 p.23).

According to the theories of Traditional Chinese Medicine, the kidneys are the centre of the body's *yin* and *yang*. The functions of the reproductive system are controlled by the kidneys. The quality and quantity of the eggs and sperm are determined by kidney 'essence' called *jing* or *jing qi*. The balance of the kidney *qi*, blood and uterus determines the success of pregnancy. Infertility can arise from the following (Fung 2001):

- Kidney deficiency: scanty menstrual bleeding
- Liver *qi* stagnation: painful and irregular menstruation
- Dampness and phlegm blockage: lack of menstrual bleeding
- Blood deficiency: scanty menstrual bleeding with pale blood
- Blood stagnation: very painful menstruation

Lyttleton (2004) further describes blood deficiency after the period and how liver *qi* stagnation before the period can result in various imbalances of the menstrual cycle. The sperm that fail to carry out penetration and fertilization of the egg cells are reflected in kidney *jing* deficiency.

The treatment offered using Traditional Chinese Medicine (TCM) is non-invasive. This is in contrast to the Western ART treatment, which includes conservative therapy like hormonal therapy and assisted reproductive technology i.e. in vitro fertilization and ICSI. Treatment with TCM includes Chinese herbal medicine,

acupuncture or *Qi Gong* exercises, nutritional and spiritual therapy may be recommended and lifestyle or dietary changes are advised if necessary. Pathology tests may be ordered for the analysis of blood or semen. The patient must drink herbal medicine for several months and return to see the TCM practitioner weekly, fortnightly or monthly, to see if the prescription needs changing and/or if it is encouraging him/her to lead a healthy life. The patient believes that herbal medicine will rectify his/her internal bodily environment and indirectly reduce stress and promote balance. This is quite different from Western ART treatment therapy.

Pragmatic health-seeking behaviour

Before 1997, Hong Kong was a British colony and the legal and health systems were determined by the British system. The majority of Hong Kong citizens tended to seek Western doctors for diagnosis and treatment. Koo (1989) points out that the first major concern of the Hong Kong Chinese who seek medical help is to relieve the symptoms which interfere with their daily activities. People understand that Western doctors have been through a recognised medical training and have become registered medical practitioners before they practise. The Hong Kong Medical Council (similar to the British Medical Council) exists to regulate the professional code of conduct and ethics of these medical practitioners. Before 1997, Traditional Chinese Medicine practitioners were not registered and tended to obtain their skills from Mainland China, then practice within the private sector. Despite the dominance of Western medicine in Hong Kong under British colonial rule, both Western and Traditional Chinese Medicine were concurrently used by the local population (Brewer 1993).

The situation changed after 1997 when Hong Kong was returned to China; legislation and professional guidelines have since been set up to regulate the practice of TCM in Hong Kong. At present, there are two medical schools that offer both Western as well as TCM training. The practice of TCM has been reemphasized, even within the public health care service TCM clinics are offering services. Under the policy of 'One country, two systems', Hong Kong has enabled the coexistence of Western and Chinese medicine. In a qualitative study, Lam (2001) explores the

attitude of the Hong Kong Chinese towards the strengths and weaknesses of Western medicine and TCM. He concludes that the Hong Kong Chinese interpret health and illness based on TCM principles but choose either TCM or Western medicine, or both, depending on what type of illness they are suffering from. In the area of infertility, there is a tendency for some couples to use TCM to improve the quality of sperm and to treat gynaecological conditions such as irregular periods. When a couple suspects that they might have an infertility problem, they seek Western medicine for diagnosis and treatment. Some receive TCM treatment before they embark on ART treatment, others may take TCM as a nutritional complement before or after ART treatment. There is a co-existence of Western and Eastern approaches to dealing with infertility problems. In this study, the data chapters will review the couples' pragmatic health beliefs in dealing with infertility and their ways of coping with ART treatment.

Summary

The traditional view of reproduction within the Chinese context has been explored. The doctrines of Confucianism, Taoism, Buddhism and Christianity have been described to give a cultural understanding of how these doctrines influence the reproductive behaviour of the Hong Kong Chinese. The uniqueness of the Hong Kong Chinese people's pragmatic health-seeking behaviour and the basis of Traditional Chinese Medicine have also described. This gives the socio-cultural background to this study. In the following chapter, I shall describe the chosen research design and methodology for the study.

Chapter 3

Researching the Assisted Reproductive Technology (ART) Treatment Experience

Introduction

In Chapter 1, the literature review confirmed the need for a qualitative enquiry, as no research studies examining the existential experience of Hong Kong Chinese couples undergoing ART treatment have been identified. The aim of this study is to gain a deeper understanding of the lived experience of Chinese couples undergoing ART treatment in Hong Kong. My concern lies with the impact of ART treatment on couples and how beliefs, attitudes and social process influence their experience. The phenomenological approach is used to describe couples' experience of the treatment. The findings of this study will contribute important knowledge towards providing couple-centred infertility care.

This chapter seeks to describe the theoretical underpinning of the research study. In the first section, I begin by describing the epistemological and ontological underpinning of research into the ART experience. In the second section, I describe the methodology of choosing phenomenology to guide my research study. In the third section, I describe concepts of phenomenology for research. In the fourth section, I describe the research process with regard to the chosen setting, addressing sampling issues, recruitment and ethical considerations. Then I describe how I collect the data through interview. In the fifth section, I describe data management in handling interview data, issues relating to transcription and translation and the process of data analysis. In the sixth section, I address issues of quality. In the seventh section, I discuss the limitations of my methods in this study.

3.1. Ontological and epistemological understanding of researching the ART experience

The researcher makes decisions about his/her choices of research approach to enable them to answer the research questions (Mason 2002). For each approach, there is a research paradigm giving guidance on the way the research ought to be conducted (Creswell 2007). Many definitions have been adopted for the word 'paradigm'. Kuhn (1970) suggests that a paradigm is a particular way for the practitioners of a discipline to define and solve problems. Guba (1990 p.17) defines a paradigm as a "basic set of beliefs that guides action." Denzin & Lincoln (1994) state that the paradigm is the philosophical stance taken by the researcher which provides a basic set of beliefs that guides action. In later work, Denzin and Lincoln (2003b p. 33) call the paradigm the "net that contains the researcher's epistemological, ontological and methodological premises." In short, the paradigm encompasses the philosophical and theoretical perspectives guiding the research study (Anfara & Mertz 2006).

Ontology

Guba and Lincoln (1994) assert that ontology is a way of asking what is the form and nature of reality and what can be known about it. The ontological assumptions of the interpretative paradigm support the existence of not just one reality, but of multiple realities that are constructed and context dependent (Lincoln & Guba 1985). The focus of investigation is on human experience and thus subjectivity rather than objectivity is emphasized (Anfara & Mertz 2006). In the interpretative paradigm, because reality and human experience are variable, multiple ways of knowing are valued to uncover the knowledge that is embedded in human experience (Monti & Tingen 2006). Ontology is a philosophical idea concerned with the nature of the social world and the goal is to derive meaning from the human experience. Therefore, this study of Hong Kong Chinese couples' experience of having ART treatment fits with an interpretative ontology because it is a lived experience for the men and women involved.

Epistemology

Epistemology is a certain way of understanding what it means to know (Crotty 1998). A researcher's epistemology refers to theories of knowledge, how we come to know the world and our ideas about the nature of evidence and knowledge (Mason 2002; Barbour 2008; Holloway 2008). Epistemology is concerned with the constitution of knowledge and serves to decide how social phenomena will be studied. Ontological and epistemological questions are interconnected since claims about reality lead to questions about how we know or come to know reality (Crotty 1998).

Creswell (2007) emphasizes that the process of designing a qualitative study begins with the broad assumptions (paradigm) central to qualitative enquiry and consistent with the chosen paradigm. As a researcher, I would like to articulate clearly the philosophical assumptions on which my study is based. In the context of my study, one might ask, "What constitutes the 'reality' of ART treatment in the infertile couple's world?" "What should we count as knowledge gained from infertile couples' experience of the treatment?" "How do I collect evidence of infertile couples' experience of the treatment?" The understanding gained will guide our professions in evaluating our care and providing care that is client-centred. Based on the nature of this enquiry, the qualitative research approach seems to be the appropriate choice for my chosen paradigm.

3.2 Rationale for choosing phenomenology

Methodology is defined "as a general approach to studying research topics" (Silverman 2000 p.88) and Van Manen (1990 p.27) refers to "methodology as the philosophic framework, fundamental assumptions and characteristics of a human science". Methods are specific research techniques or procedures that the researcher plans to use to collect and analyse data (Crotty 1998; Silverman 2000; Schwandt 2001). Methodology is the general approach to the research study that encompasses both philosophy and methods (Finlay 2006a). Therefore, choosing a methodology

means selecting a certain philosophical stance and deciding what research methods (procedures to collect and analyse data) to use. Mason further elaborates that the choice of methods should reflect the overall research strategy, which means “the logic by which you go about answering your research questions” (Mason 2002 p.30). The aim of my study is to explore the experience of Chinese couples undergoing ART treatment. I would like to know what it is like for the couples, what the experience of having ART means to them. Why do couples choose to have ART treatment? I am also interested to know how couples deal with the treatment and how the treatment affects them. However, as discussed in my literature review, there is already an abundance of psychological literature studying the relational and coping factors of couples undergoing ART treatment using pre-existing instruments (Schmidt et al., 2005; Holter et al., 2006; Peterson et al., 2006; Verhaak et al., 2007; Peterson et al., 2009). Peterson et al. (2008, 2009) tend to define the problems of the impact of partner coping in men and women with infertility and ART, in their own terms. These authors (Schmidt et al. 2005; Peterson et al. 2008, 2009) conducted their studies based on pre-determined instruments such as the Copenhagen Multi-centre Psychosocial Infertility (COMPI) to measure specific outcomes. I would like to know more about what couples experience during treatment and how the treatment impacts on their relationships. Bearing these questions in mind, the qualitative research approach is appropriate, as it strives to understand the reality of the treatment within the social world. This form of knowledge cannot be obtained through using quantitative routes that are based on observations and measurements of the objective reality (Silverman 2000). In fact, the experience of having ART treatment is lived by the couples and they attribute their meanings that shape their experiences. Therefore, I have chosen phenomenology to guide my study as it has the capacity to provide deeper insight into the couples’ experiences.

Phenomenology is theoretically and conceptually a complex philosophy because it does not just stem from one single unified philosophical standpoint (Schwandt 2001; O’Leary 2004). The philosophical movement was initiated by Husserl who is often referred to as the ‘father’ of phenomenology (Cohen 1987; Crotty 1998; Creswell 2003). Spiegelberg (1975 p.3) described “phenomenology as a philosophical

movement whose primary objective is the direct investigation and description of phenomena as consciously experienced, without theories about their causal explanation and as free as possible from unexamined preconceptions and presuppositions". Merleau-Ponty (1962) as well as Spiegelberg (1975) described phenomenology as both a philosophy and a method. As a philosophy it is rooted in the phenomenological movements which began in Germany with the work of Husserl and Heidegger and were further developed in France by philosophers such as Merleau-Ponty (Cohn 1987). The primary objective is the direct investigation and description of phenomena as consciously experienced (Crotty 1996). Husserl claimed that as a research method, phenomenology was a science which was intended to investigate all the ideas that we have taken for granted in everyday life. Husserl believed that we can transcend our natural attitudes when we bracket our presuppositions of the everyday world in order to get at the essences (Crotty 1996). Applied to phenomenological research, phenomenology is a science whose purpose is to describe a particular phenomena or the appearance of things, as lived experience (Cohen 1987; Van Manen 1990). Therefore, phenomenology is derived from philosophy and provides a framework for a method of research (Creswell 2007).

Phenomenology is the study of phenomena and its purpose is to understand the nature and meanings of the phenomena (Crotty 1996). Husserl's (1970) philosophical ideas about how science should be conducted gave rise to the descriptive phenomenological approach to enquiry (Cohen 1987). According to Husserl (1970), phenomenology is a return to the lived world, the world of experience which as he sees it is the starting point of all science. Husserl's ideas included lived world, phenomenological reduction or bracketing, the notion of intentionality and essences (see following Section, p.55) In order to understand experience, Husserl (1970 pp.103-186) aimed to go back "to the things themselves" and reveal their essence. He believed that the phenomenological description of an experience (phenomenon) is possible only when one is suspending commonly held beliefs or presuppositions about the world (bracketing) then we can describe the structures of our life-world, the world of lived experience (Cohen & Omery 1994). In Husserlian phenomenology, it is essential for the researcher to shed all prior knowledge to grasp

the essential lived experiences of those being studied (Cohen & Omery 1994; Crotty 1996).

An early critic, Michael Crotty (1996), published *Phenomenology and Nursing Research* in which he criticised nurse researchers for misinterpreting and misusing the methodology of phenomenology. The studies that he reviewed were not phenomenological, according to the European tradition, but rather a newly developed North American phenomenology, which he considered less critical. He claimed that the nurse researchers failed to make clear the meaning they attributed to the word 'experience' and that the studies were less descriptive, as the researchers failed to delineate the structure of the phenomenon as it is experienced (Crotty 1996). Paley (1997) also criticised nurse researchers for the misunderstanding and misuse of Husserl's key concepts such as 'phenomenological reduction', 'bracketing', 'essence', 'things themselves' which, he said, consequently gave rise to incoherent, unjustified phenomenological research studies. Paley further asserted that nurse researchers had misinterpreted Heidegger's 'being-in-the-world' and instead, had derived a new Cartesian split between experience and reality (Paley 1998). He suggested that nurses should leave phenomenology alone, claiming that it is very difficult to faithfully apply philosophical principles to research methods. Nurse researchers responded to both Crotty's and Paley's critiques and offered an opportunity to critically examine phenomenological nursing research methods (Caelli, 2000; Barkway, 2001; McNamara, 2005; Dowling 2007). However, Giorgi (2000a, 2000b) refuted many of Crotty's and Paley's arguments stating that there are differences between phenomenology as a philosophy and phenomenology as a research method. He claimed that Crotty and Paley failed to make this differentiation and used universal philosophical criteria to find faults in phenomenological research (Giorgi 2000a, 2000b). Giorgi (2000a), however, also admitted that there were poor examples of phenomenological nursing researchers and recommended that nurses gained a deeper understanding of the philosophy in order to be able to apply these methods.

Since then, there have been more scholarly discussions around and contributions to addressing the issues of methods and quality in phenomenological research. However, there are still controversies surrounding the application of phenomenology within nursing and other health-related research and I shall address the issues of quality in section 3.6. Snow (2009) suggests that this may be due to the complexity and multi-facetedness of phenomenology. I do not claim to be an expert in implementing Husserl's phenomenology as such, rather my position is to utilise my understanding of his philosophical concepts and show how these concepts guide my research approach. Using a Husserlian phenomenological approach, my research contributes new knowledge in describing the meanings of Hong Kong Chinese couples undergoing ART treatment and in understanding the nature and impact of ART treatment experienced by couples.

3.3 Concepts of phenomenology for research

Phenomenology is derived from philosophy; it encompasses a philosophical movement and provides a framework for a method of research (Mapp 2008). As I began to read and think about phenomenology, my understanding of Husserl's philosophy is that it is experience as perceived by human consciousness. Husserl's famous phrase *Zu den Sachen* "to the things themselves" (Husserl 1970 p.252) refers to the world of experience as lived. "To return to the things themselves is to return to *that* world which precedes knowledge, of which knowledge always speaks" (Merleau-Ponty 1962 p.ix). Husserl introduced the concept of the '*lifeworld* (*Lebenswelt*)', as the world of lived experience (Husserl 1970, cited in Van Manen 1990 p.182). He described the '*lifeworld*' as the "world of immediate experience", the world as "already there", "pregiven", the world as experienced in the "natural, primordial attitude", that of "original natural life" (Husserl 1970 pp.103-186). He claimed that the essence of this '*lifeworld*' is not readily available to us because it is always taken for granted, and that it has been conditioned by our past experience. This is a key concept and focus of investigation for phenomenology. The '*lifeworld*' comprises the world of objects around us as we perceive them and our experience of

our self, body and relationships (Finlay, 2006a). Applied to research, phenomenology is the study of lived experience and the nature and meanings of the experience (Van Manen 1990; Finlay 2006a). The focus is on the 'things' we experience including perception, believing, remembering, deciding, feeling, judging, evaluation, all experiences of bodily action and so forth (Schwandt 2001). Phenomenological research aims to provide a rich textural description of lived experience.

Other important concepts of Husserl's phenomenology are intentionality, essences and phenomenological reduction. According to Husserl, intentionality refers to consciousness, to the internal experience of being conscious of something, thus the act of consciousness and the object of consciousness are intentionally related (Husserl 1931, pp.243-244). By intentionality, Husserl meant that all our thoughts, feelings and actions are always in relations to things in the world. For Husserl, the key to the study of phenomenon was through consciousness and intentional grasping of the ultimate essences of the unique experience (Moran 2005). In research, the researcher aims to explain the participants' consciousness of what they are experiencing and how. Thus, in my research, I would like to find out what couples are experiencing during ART treatment and how.

Another assumption underlying Husserl's approach to the study of human consciousness is that there are features to any lived experience that are common to all persons who have the experience. There are referred to as the universal essences or eidetic structure (Moran 2000). In Husserl's writings (1913), as stated by Van Manen (1990, p.177) "essence" often refers to the whatness of things, as opposed to their thatness (i.e., their existence). Van Manen (1997 p.177) described essence as "the inner essential nature of a thing, the true being of a thing...what makes a thing what it is rather than its being or becoming something else". In phenomenological research, the researcher seeks to find the common themes or essences that are grasped intuitively through studying the internal structure of the phenomenon (Van Manen 1997; Munhall 2001) and through establishing patterns of relationships shared by a particular phenomenon. The aim is to uncover these essences or underlying themes of meaning of shared experience. In my research, I would like to

find out about the essence of the Hong Kong Chinese couple's lived experience of ART treatment.

The other major theme of phenomenology behind Husserl's work was the desire for a philosophy that was free from presuppositions, because Husserl believed that phenomenology describes what is given to us in the immediate experience without presumptions (Macann 1993). Husserl's work aims, at an epistemological level, to explore and reveal the essential structures of experiences. To provide an authentic description of the ordinary conscious experience, Husserl argued, it is necessary to suspend all prior scientific, philosophical, cultural and everyday assumptions and judgements (Moran 2000). Here, Husserl (1970 p. 43) identified phenomenological reduction or "to set aside all previous habits of thought, see through and break down the mental barriers which these habits have set along the horizons of our thinking...to learn to see what stands before our eyes". This process has been known as bracketing or phenomenological epoché. Thus the phenomenological reduction involves the suspension or 'bracketing' of certain commonly held beliefs until they can be established on a firmer basis, in order to open oneself to a phenomenon and view each experience in its own right. The phenomenological method suggested by Husserl requires one to suspend the taken-for-grantedness and to know the reasons why things are as they are. Heidegger (1962), one of Husserl's pupils, argued that phenomenological reduction or bracketing was impossible as we are already 'beings-in-world'. In nursing research, the term 'bracketing' is frequently used in qualitative research, however, there are different interpretations of what this means. Norlyk & Harder (2010) and Gearing (2004) shared similar views that the term 'bracketing' was loosely applied in research. This process involves the researcher setting aside assumptions and previous knowledge and focusing on the what and the how of the experience throughout the research process. I shall address how I set aside my previous knowledge and assumptions in section 3.4 on the Interviewing Process (below).

Justification for using phenomenological approach

My journey of reading about phenomenology has been challenging and I do not claim that I have fully mastered the philosophy as such. Understanding phenomenology can be complicated and I found it confusing when I first embarked on its use in my research approach. Scholars like Paley (1997), Sandelowski (2010) and Rolfe (2006) emphasised the appropriate use of the phenomenological methodological approach to address the research question, rather than regurgitation and an attempt to claim knowledge. Their points are well taken. In the phenomenological approach, I shall take a philosophical stance and define my conscious experience (my pre understanding: see p.66) of infertility and ART treatment. When the data are collected and analysed, I shall keep a phenomenological stance: the epoché, that is, to keep suspended everything I know about the phenomenon. By dwelling on the data (see section 3.4 Interviewing Process and section 3.5 The Interpretative Process), I shall begin to recognize the emergence of universal essences in relation to the couples' experiencing ART treatment.

I have chosen the phenomenological approach for my study, as this will answer my research questions most effectively. My research questions have been stated in the introductory chapter. Using the Husserlian concept I explore the '*things*' that are the '*lifeworld*' of the couples going through ART treatment. Husserlian phenomenology requires me to 'bracket' my beliefs and assumptions, to describe faithfully the experience of the couples receiving ART treatment. I do not take the Heideggerian approach whereby the researcher is required to have detailed knowledge or experience of the phenomenon in order to provide interpretation. I adopt the Husserlian approach because it is open and requires me to be sensitive, receptive, withholding my assumptions and willing to be surprised by how the phenomenon reveals things (Dahlberg & Drew, 1997). This approach also enables me to provide a rich description of the lived experience of ART from the couples' perspectives. In the following section, I describe how I applied the concepts of Husserl's phenomenology in my research design.

3.4 The Research Process

The setting for the study

The context of the setting in which the couples experience their ART treatment is important, as it forms part of their and my understanding. I asked myself where the best place would be to conduct my study. As my aim was to study couples undergoing ART treatment, the ART clinic would be my obvious choice. My main concern was regarding the feasibility of recruiting both male and female participants. As I was an academic member of staff in the department of nursing, University of Hong Kong, and the ART centre was affiliated to the University, I felt that it was feasible to conduct my study in this clinic.

The ART centre at Queen Mary Hospital was set up in 1986 for the assisted reproductive programme and it was the first of its kind in Hong Kong. It is situated on Hong Kong Island and is now one of five major ART centres in Hong Kong. Patients come from diverse geographical locations. The centre is publicly funded by the Hong Kong Health Authority and offers in vitro fertilisation (IVF), gamete intrafallopian transfer (GIFT) and intracytoplasmic sperm injection (ICSI) for infertile couples. It also offers donor insemination for couples with male factor problems, assisted ovulation for women with problems of ovulation, and insemination by the husband or partner (AIH) for couples with unexplained infertility. Couples are referred by their general medical practitioners or the Family Planning Sub-fertility Clinics after a period of unprotected sexual intercourse for at least one year. The centre is run by a team of four obstetricians, four embryologists and two specialist infertility nurses and has a licence from the Hong Kong Council of Human Reproductive Technology to conduct infertility treatments. Similarly to the British Human Fertilization and Embryology Authority (HFEA), the Hong Kong Council of Human Reproductive Technology is a statutory body that regulates licenses and publishes the on-going pregnancy rates from fertility treatment such as IVF, ICSI and donor insemination for each centre, national data on live birth statistics is not yet available in Hong Kong. The treatment service for IVF and ICSI

is offered only to couples that are legally married and patients pay a nominal fee, as for other health services. The average waiting time is around one to two years.

The clinic is situated within the general hospital setting but is only used for the infertility service. There are three consultation rooms, one ultrasound room and one treatment room. On the same level, the clinic is in close proximity to the gynaecological day ward and theatre. The first two cubicles of the day ward are specifically for ART patients, the rest of the cubicles are for gynaecological outpatients. However, if the nearby obstetric units are full, postnatal mothers and babies will also be admitted here. All couples come to the clinic to have their injections at the start of the cycle. They have an ultrasound scan to assess the maturity of the oocytes. On the day of the embryo retrieval, they are admitted to the gynaecological day ward. The embryology laboratory is next to the ART centre. There is only one public toilet available for the men to use when giving their semen sample. The couples come back to have their pregnancy tests. For a description of ART treatment procedures, see Appendix 1.

Recruiting couples

I have used purposive sampling as my main sampling method. I selected couples that were undergoing treatment, as they would have the knowledge and experience. This allowed for an understanding of the lived experience of the treatment. Mason (2002, p.134) addresses the question of sampling by asking, “whether your sample provides access to enough data to enable you to address your research questions.” I have aimed to collect data that show the depth of the couples’ feelings, rather than the breadth or of a larger sample’s experiences. The total number of couples selected would depend on the point in time when there were no more insights to be generated by doing further interviews. I decided to recruit 15 couples for the study, anticipating the withdrawal of some couples at subsequent interviews. The couples that I interviewed were all first time couples having ART treatment at this centre. I originally approached 28 couples but only 15 couples completed all the interviews (see Section 3.4 Conducting the interview). Demographic information about the

couples will be presented in the results in Chapter 4, section 4.1.

I attended the ART clinic to recruit the couples. My selection criteria were as follows: that the participants were older than 18 years of age and local residents in Hong Kong, that they were couples who had an infertility problem due to a male factor, female factor or unexplained causes, couples who were at the initial stage in the diagnostic evaluation and treatment cycles, and couples who were undergoing a subsequent diagnostic evaluation and treatment cycle. Before the actual recruitment, I explained my study and data collection to the staff of the ART centre. The physicians were supportive of the study and agreed to give out the information sheet (Appendix 2) to the couples. After attending the clinic appointment, the couples were free to contact me. I was also allocated a consultation room in which to conduct interviews within the centre.

I made myself available at the reception area of the ART clinic. Couples who had read the information sheet approached me individually. I explained to them the nature and purpose of my study in detail, addressing their doubts and queries, especially the area which related to the confidentiality about the identity, handling and use of the data collected. When the couples agreed to participate in the study, they were asked to sign the consent form (Appendix 3) for a face-to-face in-depth interview.

Ethical considerations

The study received ethical approval from the Faculty of Medicine, University of Hong Kong, as well as the Queen Mary Hospital ethical committee (Appendix 4). This was a long and challenging process for me. I was very aware that the Faculty of Medicine strongly favours quantitative studies as most of the research is clinical trial based. I was not sure how receptive the panel would be towards a qualitative research approach. I spent considerable time readjusting my proposal into the required format, particularly in addressing sampling technique and issues of rigour. Before the ethical approval submission, the consultant from the ART clinic and the Head of Department

of Obstetrics recommended that I added the name of the consultant as co-investigator in the application. Here are my two journal entries:

Journal entry

When the Professor made this recommendation about the co-investigator, I asked exactly what they meant. The reason they gave me was that it is preferable to add the medical staff as I am conducting research in their centre. I know that I have to gain their support for this study. I immediately emailed my supervisor. Not surprisingly, my supervisor asked me the following questions...“...I am not sure what the involvement of Dr X will mean for your study. Is Dr. X only to appear on the ethics application and is his role mainly to facilitate the logistics, or what else will he be doing?” I assumed that the logistics referred to the details of access and I wondered whether this medical involvement might have other effects, such as on the research method.

Journal entry

My supervisor's comments have led me to be more conscious about medical dominance and I still wait patiently to obtain the formal approval...now I am relieved as the ethical clearance from the Faculty and the hospital have been obtained.

My open dialogue with the consultant and clinic staff facilitated the research process and I became a regular visitor to the clinic.

Kvale & Brinkmann (2009) addressed four major ethical fields including informed consent, confidentiality, consequences and the role of the researcher, specifically in conducting interviews. First of all, the purpose and main features of the study were disclosed to all participants (see Information Sheet [Appendix 2] outlining the purpose and methods) before written consent was sought. The participants were requested to sign the consent form (Appendix 3) to show that they had truly understood the nature of the study. They were also informed that they were voluntary participants in the study, that they had the right to withdraw at any time they wished and that their withdrawal would not have any repercussions on the care that they received during their ART treatment. This last point was very important, it needed to be clear to the couples that participation or non-participation in the study would have

no effect on their care. Permission was asked for the tape recording of all the interviews. All participants had the right to stop the interview at any time.

Infertility is a sensitive topic and I am aware that the intimacy of the topic can lead participants to disclose information that they might regret having shared. In one instance, one of the participants disclosed a secret about his/her parenthood that he/she had never shared with his/her spouse, nor informed the medical staff of at the clinic. During the interview, I reiterated the confidentiality of this information. After the interview, I shared my inner feelings with my counsellor and wrote my reflective diary to alleviate my emotions.

The participants were clearly informed about confidentiality and who would have access to their interview tapes or material. Information that was considered revealing or damaging to the identity of the participants would be removed or disguised. All participants were reassured that names used in the findings would be fictional. Participants who had found it difficult to complete the interviews due to emotional and/or personal reasons would be offered counselling and support from the staff. Participants were also informed that ethical clearance would be obtained to get access to review the patient medical/nursing notes related to their diagnosis and treatment plan. In addition, they were informed that there was no conflict of interest i.e. profit, personal or departmental in relation to the study except that it was a partial fulfilment of the requirement for the Degree of Doctor of Philosophy at the University of Edinburgh.

As my research mainly used interviews to collect data, my role as a researcher was very important because as the interviewer myself, I would be the main instrument for obtaining knowledge. As Kvale and Brinkmann (2009 p.74) point out: “the integrity of the researcher – his or her knowledge, experience, honesty and fairness – is the decisive factor to achieve integrity and ethical principles for the qualitative inquiry.” In addition, it is also my responsibility to present as accurate a representation of the field of enquiry as possible. In section 3.5 below, I address the issues of rigour that enhance the accuracy and representation of the findings.

Data collection

The data collection started in July 2002 and ended in June 2004. During this time, I interviewed each couple three times. The first was a joint interview with husband and wife. The second was a single interview with the wife and a separate single interview with the husband. The third interview was jointly with wife and husband together. There were a total of 15 couples who completed all three interviews. Thus, the data comprised of 60 interviews from 15 couples. The interview period was interrupted by personal family bereavement and the outbreak of SAS epidemic in 2003. Interviews were completed by June 2004. Due to the transition of moving back to the United Kingdom and bringing up two young teens, a suspension from doctoral study was taken for two years. The final report was completed in October 2010.

A pilot study was conducted in June 2002. The aim of the pilot was to test the semi structure interview guide and to practise interviewing the husband and wife. I was introduced to one couple by my colleague. The couple had completed one cycle of ART treatment at another ART centre. I developed a preliminary semi structured interview guide (Appendix 5) to use while exploring the couple's experience of having ART treatment. During the pilot, I found that the semi structured interview guide was feasible and required minimal refinement. The pilot study provided an opportunity to practise my interview technique and hence facilitated the actual data collection process (Byrne 2001)

Conducting the interview

The nature of the study requires our 'being-in-the-world' (Dreyfus p.40) and takes place in the '*lifeworlds*' of my participants and myself (Husserl 1970, cited Van Manen p.182). The data consist of existential material including a) the researcher's own perspectives on the phenomenon of having ART treatment, b) the professionals' perspectives from the literature review, c) the couples' perspectives from the semi-structured interviews of going through the ART treatment cycle and d) my personal reflective journal.

From the phenomenological perspective, the interview is a semi-structured '*lifeworld*', an attempt to understand themes of the everyday lived world from the participants' perspectives, and it can be regarded as a form of conversation in which knowledge is constructed through the interaction of interviewer and interviewee (Kvale & Brinkmann 2009). Therefore, the interview is a data collection method to access the participants' lived world. The woman and the man making up each of the couples were interviewed separately and jointly on three occasions.

The purpose of the first interview was to build up a rapport between the participants and the interviewer. It served to explore what infertility meant for them and their choice of having ART treatment. Initially, each couple was interviewed as a pair by me in the interviewing room within the ART clinic, they completed consent forms and the participants' details were given to me verbally. Then the semi-structured interviews were audio recorded. The interview lasted approximately 1 to 1.5 hours.

For the second interview, the husband and wife were interviewed separately, and in the third interview, each pair was interviewed jointly. All participants were given a choice as to where the interviews should take place. Three couples chose to meet in their own homes. Two couples chose to meet at the public library where I booked an interview room. One couple chose to meet at MacDonalds. Although these settings were sometimes subject to noise and interference, participants seemed to feel comfortable and relaxed in their chosen settings. For instance, Fiona and Craig chose to meet in their own home where Craig commented that he felt more relaxed and able to talk about his experience than at the clinic, where he felt restricted. Carol and Jim also chose to be interviewed at their home enabling me to relate to their issues regarding Carol's commitment to looking after her grandmother at home. Lisa and Mark too, chose to be interviewed at home, which gave me a deeper understanding when Lisa talked about her complete bed rest at home when she started bleeding early on after the pregnancy test. Susan and Brian chose to meet at the public library where Brian was content to go online while I interviewed his wife. It gave them a place where one partner could be occupied while the other was interviewed. Samantha and Tim chose to be interviewed at MacDonalds, as it was a convenient

place for them to meet after work. Two couples chose to be interviewed at my workplace at the university. The remaining couples chose to be interviewed at the ART clinic. Different settings and environments provide data to help me to reflect on my research questions. Couples felt more at ease talking about their experiences in their chosen places, whether at home or in a semi public setting, and I was better able to contextualise what they said. An interesting comparison to the data collected at the clinic in the consultation room, where it seemed as if the couples felt like outsiders rather than insiders.

I interviewed 28 couples for their first interviews. However, there were a number of couples who dropped out and did not complete all the interviews. Two couples were unsuccessful in completing their first cycle of treatment due to technical issues as no sperm was retrieved. Seven couples refused to attend the second and subsequent interviews because they were unsuccessful in their first cycle of treatment. They told me that they did not want to talk about their failed cycle in an interview. I had to respect their decision. Two couples missed their interview appointments and left as they moved to a different geographical area. Two couples refused to attend the second interviews but were willing to share their experiences over the phone. Notes were taken from the phone conversations. All these couples were excluded in my data analysis. I need to consider that if I had retained the data, then the findings might have been different.

In the end, I interviewed 15 couples who completed all two joint interviews and two single interviews. In total, I obtained 60 interviews for these 15 couples. For the schedule of all interviews, please see Appendix 6. My final data analysis was based on these 15 couples. These data represented the couples who were eager to share their lived experiences of having ART treatment. This was also based on their first cycle of treatment experience. The interviews of the 13 couples that dropped out of my study might have been different, as their experience might have been different. This could possibly have affected my understanding and I have to wonder about what effects they might have had on my findings.

Interviewing process

Husserlian phenomenological traditions require phenomenological reduction or bracketing (see section 3.3) which is undertaken to suspend belief, so that preconceptions and presuppositions are put aside and the ‘true’ phenomenon or essence is revealed (Crotty 1996). This requires the researcher to put aside her preconceived ideas regarding the subject of the interview prior to data collection and throughout the research process. While Paley (1997, 1998, 2005) has challenged nurse researchers over the problem of bracketing in the Husserlian tradition, it would seem that the intention is to adopt a detached position where prior assumptions can be suspended. Rather than attempting to suspend beliefs, I have adopted a reflective approach to bracket my presumptions and beliefs about ART treatment. I have written in my reflective journal to explore my researcher’s role as a midwife and my way of understanding ART treatment (see Introduction) and what having the treatment means to me personally. This has enabled me to engage with the participants in an open dialogue.

Table 3.1 My initial bracketing of my pre-assumptions about ART treatment

Issue	Pre-understanding
Perception of my own reproductive history	Aware of my own experience of fertility Open and honest dialogue with participants if asked if I am fertile or not
Perception of infertility	Social stigma for some cultures A form of grief – losing the ability to procreate Women suffer more than men
Desire for ART treatment	Personal choice Societal demands Differences for men and women in making this choice
Nature of the treatment	Physically and emotionally demanding Coping styles and coping strategies
Clinical aspect	Invasive Ethical issues about embryos
Personal stance	Benefits versus potential risks My own religious background versus couples’ values regarding the technological intervention with reproduction Success rate versus failure rate

The purpose of reflecting on my pre-understandings was to suspend or neutralize a certain presumed attitude that I have towards ART treatment (reality). This allowed me to focus directly on reality just as it was given by the participant couples rather than taking the world for granted. Gallagher and Zahavi (2008 p.23) made the point “one shouldn’t think of the epoché as something that is accomplished for good in one first step, then to be followed by several other procedures. The epoché is an attitude that one has to keep accomplishing.” My reflections permitted me to investigate the couples having ART treatment with a fresh attitude (see section 3.3).

The first interviews began with the general question, “How did you meet each other?” as if in social conversation. The aim was to put the participants at ease, to establish rapport and to set the mood for subsequent questions. Using my semi-structured interview guide (Appendix 5), I asked, “Do you know any family, friends or other people who have experienced difficulty having children?” to open the topic and then followed with the question, “What caused you first to be aware that there were difficulties for you or your partner in having children?” As I wanted to elicit the couples’ feelings about their infertility problems and their desire to pursue ART treatment, I went further to ask, “What made you to decide to choose ART treatment?” and “What are your expectations of ART treatment?”

The second interviews focused on their experiences of the treatment cycle. In this interview, I discovered that treatments had been unsuccessful for all but one couple. Initially, I was concerned that they would not wish to continue. My first question began, “How are you doing?”, leading to the questions, “Can you tell me what this ART treatment cycle has been like for you? Could you describe in as much detail as possible, the emotions you have felt?” Sometimes, I probed the question when clarity was needed: “Could you say something more about your reactions to the pregnancy test result?”, “Can you give a more detailed description about how you and your spouse handled the treatment process?”, “Can you give further examples of losing control?” The majority of participants initially focused on the whole treatment process and then later, they described their feelings and worries, disappointment and uncertainty at a deeper, more personal level. I found it very useful to interview both

husbands and wives individually, as this gave each of them space to articulate their experience. They did not feel the pressure of measuring what they wanted to say as they might have in the presence of their spouse. I was surprised, as initially I thought that I would not get a rich description from the male participants. All participants, except one, engaged in an in-depth dialogue with me.

The final joint interviews focused on how the couples felt about the treatment and what they wanted to see improved in the service. I found that the majority of couples concurred with what they had talked about individually. There were a few times when I found out data through the individual interview but not in the joint interview. In the joint interview, there were couples where one party seemed overpowered, such as when the woman did most of the talking or the man. I think the separate interviews gave me some insight into the couples' interactions with each other as well. As I continued my interviews, I wrote in my reflective diary:

Today, I received comment from my supervisor about my first set of interviews. One of the comments was "...you have to be careful about how to get a response from the participants without putting words in the respondent's mouth and the appropriate use of probing and prompting that is needed." I reflected on how I could improve my interview technique. Then I referred to the tape and read my supervisor's comments and suggestions about where I should probe and what other words I could use to encourage the participants to be open with their dialogue. I read the books about conducting qualitative interviews and refined my skills. As I interviewed more couples, I felt confident and more at ease in eliciting their response and I seldom needed the interview guide as the participants thoughts flowed freely and I let their conversations to go at their own pace.

In addition to the interviews, I collected demographic information and made field notes. During each interview, I took a few brief notes and expanded on these after the completion of each session. The context of the interview will be described as well as any factors that might have influenced the data collection process, for example, interruption in the clinic environment in which the interview took place, observation of the participants and the dynamics of the couples. Demographic data were also collected to describe the characteristics of the sample. Before the interview, the

couples were requested to fill in a short information sheet including their contact details for follow up interviews. I also obtained ethical clearance to get access to review the patient medical/nursing notes related to their diagnosis and treatment plan. Collecting data from interviews, field notes, my reflective diary and case notes would provide breadth and depth to the study findings. This also facilitated the analysis process.

3.5 The Interpretative Process

Crafting the text

All the interviews were conducted in Cantonese. I then transcribed the interviews verbatim into Traditional Chinese. I had to decide whether to analyse the interviews in Chinese or to translate the transcripts into English before analysis. The translation into traditional Chinese of my previous publication on the quality of life health related instrument (Lau et al. 2002) taught me much about the issues of translation in research work. The difficulty relates not only to language but also to culture. To translate the health related quality of life instrument involved forward translation from English into traditional Chinese and back translation from the translated Chinese back to English, and the meanings had to be in congruence. This can reasonably be achieved for an instrument with specific items, for the overall aim of translating an instrument is to ascertain a valid comparison between samples within and across cultures. However, the translation of in-depth interview transcripts is an entirely different issue. In the process of such translation, from Chinese into English or vice versa, there exists a real possibility of losing the true meaning and essence of the lived experience of our participants. Twinn (1997) carried out a comparison of

Traditional Chinese characters (traditional Chinese) refer to the standardized Chinese characters that are most commonly used in Hong Kong, Macau, Taiwan and other Chinese communities. The Simplified Chinese character (simplified Chinese) forms were created by decreasing the number of strokes and simplifying the forms of the traditional Chinese character. This is the official Chinese language used in Mainland China. The simplified form is an attempt, as its name implies, to simplify those characters required for day to day reading and writing. The introduction of the simplified form and Putonghua, the official Chinese language in Mainland China, was intended to reduce inter-ethnic and regional differences (Chen, 1973.)

the categories and themes generated from Chinese and English data sets: her findings suggested that similar categories and themes were developed during the analysis of the qualitative data, whether using Chinese or English as the medium for data analysis. Twinn (1998) recommended the importance of using one translator to maximise the reliability of the study and she briefly commented on the potential difficulties in other research approaches such as phenomenology.

As I am bilingual in Chinese and English, I transcribed 32 interviews and the research assistant transcribed 28 interviews into Traditional Chinese text. Then I translated the Chinese transcripts of four interviews from one set of couples into English text. To maintain the validity of my translated text for analysis, I adopted Twinn's (1997) approach and transcribed the four interviews from one set of couples both in Chinese text and English text. Then I conducted data analysis on both the Chinese and English texts. Afterwards, I gave the text to a professional translator to check and correct my translation and we discussed any remaining questions. I noted the difficulty of translating words for which there is no obvious equivalent in the English language. I also noted that there is a difference in dialect expression and the tones my participants used in their spoken languages. Through discussion with the professional translator (who is also bilingual) I have attempted to obtain as close as possible linguistic and cultural equivalents to the meanings in the text. As a novice qualitative researcher, I also translated several interviews into English and analysed the data based on the English text for my supervisors. Through these means, I attempt to obtain conceptual and linguistic equivalency when I present my findings in English. Chen and Boore (2009) review the methods of translation and back-translation in qualitative nursing research and suggest a method in translating qualitative data in which translation takes place after the data has been analysed. My concern is that if translation only takes place after data analysis, the interpretation of the data is done and may not have captured all the linguistic elements of the interview. There are limitations to both approaches and it is important that the researcher and the translator have not only a proficient understanding of each language but also an in-depth understanding of both cultures (Birbili 2000) to help to achieve conceptual equivalence between the two languages. I analysed one set of

couples' interviews (four interviews altogether) in Chinese and also analysed the same interviews transcripts in English language. Then the professional translator checked both of my analyses in order to obtain conceptual and linguistic equivalency of the texts. Due to time and cost, my analysis was based on Chinese transcripts (see also section 3.5 Analysing and Interpreting).

Handling the transcripts

There were 60 interviews in total. All recorded interviews were transcribed verbatim in Chinese. I transcribed the initial 16 interviews (4 sets of couples) and the last sixteen (last 4 sets of couples) of the 60 interviews. A student research assistant employed within the Department of Nursing at the University of Hong Kong transcribed the other 28 interviews. She was a second year of undergraduate student studying Chinese. She was particularly skilful at transcribing colloquial Chinese. I conducted all the interviews and when I checked the transcripts, I also noted down my remarks. I read through each couple's transcript before subsequent interviews with them and listened to each couple's interview while I checked it with the transcript. I listened again to all sixty audiotapes and again compared them with the transcripts. Then I listened to the individual interview tapes for all 15 couples. I made notes of my impressions as I listened to the tapes. This process was very time consuming, but having the opportunity to concentrate on all the data again was a valuable way to reorient myself to the study after returning from my compassionate leave.

Once I had listened to all 60 tapes, I then re-read all the transcripts, first the first interviews, then the second, third and fourth (joint) interviews. I made notes of my impressions and questions to ask myself for later descriptions. Here are some examples of my notes:

- What did the couple say about their infertility experience?
- Why did the majority of couples comment that ART was a natural medical treatment when Carol specifically

highlighted the issue of the unnaturalness of ART treatment in her perspective?

- When I write the descriptions I am very mindful not to reveal any confidential information disclosed by the participant. In one interview, the male participant revealed that he had kept a secret from his wife and medical staff about conceiving a child with his ex-girl friend, which was aborted. I wondered what his intention was and the reasons for telling me and if I should omit details about their infertility history.
- What did the couple express about their way of dealing with their loss? What did they mean by “*let it be; following the natural flow*”?
- What did the couple mean when they said, “We are ok and we can deal with our emotions but others need support, particularly those who were unsuccessful...perhaps some form of counselling?”
- What did the couple mean by “There is no choice...you just accept it...that’s it”?

The four interviews (two individual and two joint interviews) conducted for each couple were regarded as a case and filed under a reference code. A reflective summary of each couple for each interview was made, highlighting important statements. These case files allowed me to read the interviews as a whole and helped me to see the whole picture. Here is one example of a case summary for Carol and Tim:

Box 1: Case summary for Carol and Tim

Carol & Tim

Reproductive history: Carol, aged 28 has had sub-infertility for 4 years. Carol and Tim have been married for 4 years. Carol has ovulation problems and Tim has ejaculatory impotence. Carol has had various diagnostic evaluations and has tried IUI before IVF treatment.

Summary of the interviews

Carol and Tim are desperate to conceive. Carol is afraid of losing her husband if she cannot conceive. Carol has been through various different treatments without success. She has experienced great disappointment and has eventually come to terms with her fertility problems. But she is always holding on to the hope that one day, she will become pregnant.

Tim has a strong desire to have his own child. He blames Carol's family for not looking after her when she was young. Carol suffers from dermatitis and cannot do any housework. She has also suffered from irregular periods but she never consulted a doctor before her marriage about the condition. Tim expressed his feelings of disappointment when the cycle of treatment failed. After the embryo transfer, Tim controlled his temper and was very nice to his wife...supporting her as best he could. When the treatment failed, Tim found that he had to cope with his own emotions too. He experienced a sense of "**feeling down**" and "**hopelessness**" and "**lack of motivation**". He reacted by avoidance and wanted just to be "alone by himself". Therefore, immediately after the treatment and failed result, he left Carol and went on a business trip. Later, he sent an email to Carol, as he knew she was very upset as well. He feels that not being able to have his own child is a **handicap**. Over the past four years, he has been through hope and disappointment and feels tired of all the treatments. He did not like being dragged along by the ART treatments. He wanted a quick fix and then to be able to move on.

Carol, eventually, came to the realization that she had fertility problems and that ART was her last resort, although she has expressed her resistance towards ART treatment as she feels that it is not natural. She expressed her great disappointment and sadness when the treatment failed. But she also expressed her hope to keep going along the journey. She felt supported, respected and spoiled after she had the egg transfer...as her family members treated her as if she were pregnant. When the treatment cycle failed, she was in despair as she felt uncared for and had a feeling of being abandoned by her husband. She felt that she had nothing left. She holds onto hope to keep her going through with the treatment. She feels childbearing will secure her marriage. She feels infertility hinders her in terms of her personal and career goals. After she had her treatment, she felt uncertain when confronted with other women who had experienced failed ART. She felt as if she would become like them, experiencing constant failures with ART treatments.

Carol felt that one of the doctors was very direct in telling her the prognosis and how bad ART would be for her condition. But then he also gave her hope by telling her about another alternative. Carol would have preferred if one of the infertility nurses had given her support and encouragement by communicating in a more positive way, such as saying "we wish you success", and she felt *that the medical staff and nurses* should pay more attention to the patient rather than just chatting among themselves during the egg retrieval procedure.

Tim wished to attend the egg retrieval, as he had never been before ... it was something new for him. But Carol felt that if the husband does not worry, then it is fine to let them attend the egg retrieval. However, if the husband's presence affects

the medical and nursing staff, she felt that it was unnecessary for the partner to be present for the procedure. Perhaps he could watch on a video TV in another room. They also commented on the efficiency of the laboratory in collecting the sperm sample. The laboratory staff had tried to accommodate the couple when they went to submit the sperm sample. Both Carol and Tim still express hope for the next cycle of treatment.

Analysing and Interpreting

I used a modified Colaizzi (1978) method to analyse the interview transcripts. As I began to read my data, I was conscious of my pre-assumptions regarding infertility and ART treatment (see Table 3.1) but through my reflective process, I have strived to maintain an attitude which prevents imposing *a priori* assumptions on the data. I attempted to immerse myself in the world of these couples' experiences by reading all the transcripts several times to develop a sense of the 'whole'. The 'parts' were examined and I underlined all the significant statements in each transcript. These significant statements were in relation to any descriptions, phrases and sentences directly pertaining to the impact, responses, thoughts and feelings regarding the treatment and its outcome. Duplicate statements were eliminated. This is known as extracting significant statements. Both the 'part' and the 'whole' were examined. Then I read and reread the significant statements and reflected upon them from the perspective of the original transcript contexts. I tried to spell out the meaning of each significant statement to form an initial code for significant statements. This is known as formulated meanings (initial code for significant statements). Then I wrote down lists of code words and developed initial themes. The emerging themes were thematically aggregated and organized into clusters. These clusters represent the commonalities shared by all the couples' descriptions. Then I went back to the original descriptions and looked for any discrepancies between the allocated clusters and the original texts. Finally, a description of the experiences of ART treatment was derived from integrating all the themes to form the essence of the experience.

Initially I used the NVivo computer software programme to create cases and code the data. I spent substantial time and effort in sorting out the problems of importing

Traditional Chinese using the NVivo computer software. I used NVivo to store the codes and for the first two couples and used NVivo to analyse the data. However, much to my disappointment, the programme did not manage to capture all the Chinese characters and there were words that were not stored in their original format. This has created difficulties in fully utilising the programme. Although I did not manage to use NVivo to code all the data due to the characters of the Chinese language, I have benefited from the use of this program in helping me to store the massive interview data, and systematically create files to store my memo notes, the participants' demographic information and my reflective diary.

In the end, I went back to read the hard copies of the word files for all sixty Chinese transcripts. I was aware of the issues of translation and transcription (see section 3.5 *Crafting the text*). I adopted Twinn's (1997) approach, as she suggests that similar categories and themes were developed during the analysis of qualitative data, whether using Chinese or English transcripts. In my study, my analysis of data was based on Chinese transcripts. After the analysis, I translated all findings into English.

From each transcript, significant phrases or sentences that pertain directly to the lived experience of infertility and ART treatment were underlined. Meanings were then formulated from the significant statements and phrases. These meanings formulated the codes. The codes generated from the formulated meanings were clustered into themes, allowing for the emergence of themes common to all participants' transcripts. This process continued through many versions and, as the themes were revised, I continued to go back to the transcripts to ensure that the text reflected my understanding. Table 3.2 includes examples of significant statements with their formulated meanings.

Table 3.2: Selected examples of extracted significant statements to formulate meanings

Extracted significant statements from participants' descriptions	Formulated Meanings
<p>Ian: We do not absolutely need children. To me, it doesn't bother me. If I don't have children, I can still live freely. But if I have children...it is a good thing...it really doesn't matter.</p> <p>Monica: During all this time, I have changed my thoughts as whether to have or not to have children...starting the treatment.</p> <p>Monica: I have no problems communicating with my husband. We live happily and we have common interests. Then I think even if we don't have children, this will not affect us. However, having our own children would be like building a bridge between my husband and me.</p>	<p>Not absolutely needing to have children but it would be good to have children.</p> <p>Giving up treatment before and now starting another treatment</p> <p>Not having children will not affect the relationship but having children would act as a bridge</p>
<p>Mark: Yee... I follow Buddhism ...<i>yuan</i>. It means that you do not insist on following your own desire rather you follow the natural course. This has helped me not to be too mindful about the result. Even if the result is successful, it is not good to get too happy or excited, as you don't know whether this will last long. Even if the baby is born, he or she may not be healthy. This is what we need to accept. This is <i>Yuan</i>. Buddhism teaches me to follow <i>Yuan</i>...not to be decisive. Then you will not have illness and jealousy. I have spent a lot of time in these few years learning about this.</p>	<p>Trusting in the spiritual belief of Buddhism</p> <p>Not to follow your own desire</p>

Through the utilisation of imagination or a “free play of fancy” (Husserl 1931 p.57), I approached from divergent perspectives, viewed the phenomenon from different angles, examined the many possibilities of the phenomenon, and eventually found in fantasy the potential meaning that makes the “invisible visible” (Husserl 1931 p.40). The possible causality, roles, materiality, temporality, spatiality, relationships with the self and relationships with others were carefully examined. Each examination opened new awareness that connected with other and new perspectives that related to each other. I examined again and again, keeping my eyes on the experience and studying what was just before me, exactly as it appeared.

As I returned to the original transcripts, I reread them; I drew a cognitive mind map on A3 paper of issues brought up by each couple. Through this process, I realised that the categories I had used initially did not capture the couples’ ‘lived experiences’ as they had emerged when looking at the whole picture. By drawing the mind map, it helped me to see ‘what was happening’ to the couples. The theme ‘social stigma’ came up and the categories emerged as ‘social isolation’, blame, guilt, loss of control, challenging one’s own sexuality and self-image. The data reflected the Chinese cultural implications associated with infertility and the category ‘punishment’. ‘Adjustment in dealing with the treatment’ occurred as a theme and other categories came under cognitive, affective and behaviour strategies. The theme ‘experiencing loss’ emerged and subcategories ‘sense of doubt and wishful thinking’, ‘searching for causality and changing issues of blame’ and ‘feelings of powerlessness’ were formulated. Another theme ‘strategies to deal with loss’ evolved and subcategories were formed under ‘selective disclosure’, ‘being optimistic’ and ‘resigned acceptance’. After the treatment, the major theme ‘making sense of ART treatment’ reflected the couples’ insights into their experience and the subcategories were related to ‘awareness of the complexities of the treatment’. The other major theme was ‘reframing’ in which the couples thought about ‘spiritual dimensions’, ‘reprioritizing and reconstructing life goals’ and ‘redefining reproductive choice’ in relation to their infertility and ART treatment. The theme related to ‘relationship’ was also formulated and the subcategories were ‘marital relationships’ and ‘sexual relationships’. Table 3.3 includes examples of clusters of significant statements to

form themes. Table 3.4 illustrates examples of sub-themes to form the mega-themes. These are some of the examples of joint significant statements taken from both husbands and wives.

Table 3.3 Examples of significant statements with formulated meanings to form themes

Significant statements across cases	Formulated meanings	Theme clusters
You are being punished by not having your own child. I must have done something wrong. Infertility is shameful and it is not a good thing to talk about. People talk about infertility as if it were a curse, as if you have done something bad before.	Inability to conceive as a punishment. It is shameful.	Being stigmatized.
Before, having sex was very much a personal matter between us. Now I have to give sperm samples in the public toilet at the centre.	From public to private.	The place of other people.
Feeling moody when I have the injections. Feeling annoyed and impatient with the demands of the treatment. Fluctuating hope and disappointment during the course of treatment. Waiting for another cycle of treatment, and the fluctuations start all over again.	Emotional reactions during the treatment. Hopefulness/disappointment.	Emotional demands of the treatment.
Paying more attention to my bodily health and the food I eat. I take more exercise and rest more frequently so that I can produce a better sperm sample. Becoming more mindful about the food I eat after the embryo transfer. I spend more time at home with my wife after the treatment.	Diet. Lifestyle changes.	Lifestyle adjustment.
Towards the end, the success of the treatment depends on her body's reaction. Feeling disappointed with the result as we have worked very hard for this treatment.	Blame. Disappointment/sadness.	Mixture of feelings.

Table 3.4 Themes of Chinese couples' lived experience of infertility and ART treatment

Unit of Meaning/Structure of the phenomenon

Sub-themes	Mega-themes
<p>Being in doubt and not knowing Feelings of loss of control Altered self perception and self image Threat to femininity Threat to masculinity Feelings of personal guilt</p> <p>Social stigma Threats of losing family line Perceptions of social blame</p>	<p>The uncertainty posed by infertility to personal self</p> <p>The uncertainty posed by infertility to societal others</p>
<p>Meanings of parenthood</p> <p>Reasons for pursuing ART treatment</p>	<p>Doing something</p>
<p>Biological time Inner personal time Past affecting the future</p>	<p>Temporality to infertility and ART treatment</p>
<p>Tolerating the inconvenience Trusting the doctor From private to public</p> <p>Emotional turmoil Relational demand</p>	<p>Normalising the ART process</p> <p>What if...it does not happen?</p>
<p>Cognitive strategies Knowledge control Taking each step as it comes</p> <p>Affective strategies Emotional support vs lack of support from spouse Emotional support from the health-care professionals Spiritual support</p> <p>Behavioural strategies Dietary observance Lifestyle adjustment</p>	<p>Adjustment in dealing with the ART process</p>

Sub themes	
<p>Before the loss: sense of doubt and wishful thinking During the loss: Experiencing painful periods Wife's feelings related to the failed outcome Husband's feelings related to the failed outcome Searching for causality and changing issues and blame Feelings of powerlessness Fear of multiple loss</p> <p>Selective disclosure Being optimistic Being pessimistic Spousal support Professional support Spiritual support Resigned acceptance Letting go</p>	<p>Experiencing loss</p> <p>Dealing with the loss</p>
Sub themes	
<p>Vision of success and failure connected with infertility and ART treatment Increased awareness of risk taking in ART treatment We are in control or we are not</p> <p>Temporal dimension of infertility and ART treatment Bodily functions after the ART treatment</p> <p>Reframing infertility and ART treatment within a spiritual dimension Reprioritizing and reconstructing life goals Redefining reproductive choice</p> <p>Marital relationships Sexual relationships</p> <p>Embracing hope</p>	<p>Making sense of the treatment</p> <p>Creating a new understanding on temporal and corporeal dimensions</p> <p>Reframing infertility and ART treatment</p> <p>Couples' relationships</p>

From data to writing up

Getting from data collection to the writing up stage has been a difficult time for me. The process of arriving at a thematic structure has been hard. As Holliday (2007) states, the thematic structure is very different to the structure that governs data collection and he further elaborates that the themes guide the writing of the findings. Initially, I have used my clinical orientation to structure the themes. In one of the draft chapters, I used the themes 'stress' and 'coping'. One of the supervisors challenged me about what happens to those who do not cope well. It was the process of writing and rewriting that eventually helped me to develop the description of the experience. Van Manen (1990 p.131) states, "the methodology of phenomenology requires a dialectical going back and forth among these various levels of questioning. To be able to do justice to the fullness and ambiguity of the experience of the '*lifeworld*', writing may turn into a complex process of rewriting (re-thinking, reflecting and recognizing)." Engaging in this journey of writing and rewriting, the process guided me to craft the texts that reflected the experiences of the couples having ART treatment. The essence of a lived experience is the condition or quality without which a thing would not be what it is (Husserl 1931 p.43). It is the 'whatness' of things, as opposed to their 'thatness' (i.e. their existence). It can only be discovered "through a study of the structure that governs the instances or particular manifestations of essence of that phenomenon" (Van Manen 1990 p.10). It can only be objectified by a linguistic construction or description of the phenomenon.

3.6 Issues of Quality

There have been major debates surrounding the legitimacy and the rigour of qualitative research studies (Morse et al 2002; Sandelowski, 2002; Rolfe, 2006). Qualitative scholars like Van Manen (1990), Denzin & Lincoln (2000) and Sandelowski (2002) have all challenged the concept of rigour, arguing that rigour is an empirical term and therefore does not fit into an interpretative approach. Morse (1999) points out that science is concerned with rigour and that if we reject the

concept of rigour, we are undermining the knowledge generated from qualitative research. Finlay (2006b) comments that qualitative researchers would be subjected to criticism from the positivist tradition if their work lacked rigour. Ballinger (2006 p.235) goes further and states that without the criteria of rigour, qualitative research would be perceived as “merely subjective assertion supported by unscientific method”. Criteria of rigour specific to qualitative research have been discussed in the literature (Denzin & Lincoln, 2000; Koch, 2006; Rolfe, 2006). Early work by Annells (1999) proposes several criteria to assess the rigour of phenomenological nursing research, such as understandable and appreciable process and product of inquiry, useful product of inquiry and appropriate inquiry approach. It is as if there is a set of rules to follow in order to accomplish rigour. Since then, different criteria have been implemented to assess qualitative research.

Qualitative research involves subjective interpretations of the phenomenon. The work of Lincoln & Guba (1985) replaced the validity, reliability and objectivity of quantitative research with credibility, transferability, dependability and confirmability. Credibility addresses the issue of ‘fit’ between the respondent’s view and the researcher’s representation (Schwandt 2001). Transferability refers to the generalisability of inquiry. In a naturalistic study, this represents interconnected thoughts or parts linked to the whole. Dependability is achieved through a process of auditing. Confirmability is concerned with the presentation of the findings that are directly derived from the data. Other scholars like Creswell (2003), also proposed member checking (returning to the participants to confirm findings) or peer checking (using a panel of experts or an experienced expert to re-analyse some of the data) to determine the accuracy of the qualitative findings. However, criteria such as member checking and triangulation assume that different perspectives will converge on some claim of ‘truth’. On the contrary, qualitative scholars Rolfe (2006) and Sandelowski (1993) both contest dependability as a threat to credibility and question the many tests, such as member checking, as a way to ascertain that the researcher has analysed the data correctly. They shared the view that any attempt to use rigorous methods (such as member checking) would affect the true meaning of the data. Lincoln & Guba (2000) have suggested replacing trustworthiness with authenticity,

including fairness. Morse et al (2002) has criticised the way that authenticity criteria do not enable the researcher to illustrate the inquiry process until the end, and that this might run the risk of being too late to rectify the process.

Rolfe (2006) put forward his major argument about validity, trustworthiness and rigour in qualitative research. He argued that there is constant debate about the suitability of criteria to judge the quality of qualitative research studies. In his view, it is “an inability to identify a ‘coherent qualitative research paradigm’, and that, in effect, such a unified paradigm does not exist outside of research text-books” (Rolfe 2006 p.308). He further proposes to abandon a search for a generic framework for assessing the quality of qualitative research but to acknowledge the existence of a multiplicity of qualitative paradigm. Rolfe (2006, p.309) mentions that “quality judgement entails a subjective reading of the research text and the responsibility for appraising research lies with the reader rather than the writer of the report; with the consumer of the research rather than the researchers themselves”. He proposed that the researcher recounts not only the rationale for the research but also the actual course of the research process in the form of a detailed reflective research diary. His view is shared by Finlay (2006b), in that the quality of any qualitative research should be judged by its relative power to draw the reader into the researcher’s findings, allowing the reader to judge the quality of the work.

I have attempted to provide the reader with the information necessary to understand the research process and how the findings were generated according to Rolfe’s criteria. Whether the study meets Rolfe’s criteria of quality in qualitative research can only be evaluated by the reader, who needs to appraise my thesis from beginning to the end.

3.7 Limitations of the study

All research studies have limitations and as Patton (2002 p.223) states, “There are no perfect research designs. There are always trade-offs.” My study is framed according to the interpretative tradition and the purpose is not to generalise the findings but rather to provide a deeper insight of what it means to Chinese couples to undergo ART treatment. The main design is to use face-to-face interviews to obtain in-depth descriptions of their experiences. The strength of using in-depth interviews is that they draw from the participants’ perspectives and are not being imposed by predetermined questionnaires. However, there is also interview bias. Gilbert (2001) identified possible sources of bias arising from poor interview techniques such as misdirected probing and prompting, ignoring the effects of interviewer behaviour and problems with wording, meaning that some participants may tend to give a favourable response in order to disguise their true feelings. All these could affect the quality of the data obtained. As this study is based on the interpretative framework, ‘truth’ is a much more elusive concept. In simple terms, individuals construct their own version of reality. In short, the world consists of multiple, subjective realities. The use of the interview is a way of getting close to the data. As Finlay (2006a) and Kvale & Brinkmann (2009) emphasize, the importance of the researchers’ interviewing skills and maintaining a reflective stance during the research and writing process ensures the quality of interview obtained. In addition, my own limited experience in qualitative research posed a challenge to me. It is from my perspective as a midwife and a nurse that this work has taken place. The result is a novice’s first effort in presenting a doctoral thesis. The process of writing and rewriting and guidance from my supervisors has helped me to stay in touch with my work, acting as a buffer to help me let the data speak and be genuinely present during the interpretation.

The data obtained from interviewing and the case notes of the participants were the only resources used for shaping the couples’ experience in this study. This could pose limits to the interpretation of their real life experience. The meanings the participants applied to their own experiences occurred within natural settings (i.e. the ART clinic

and their home environment). Though it would not be possible to follow the infertile couples in their home environment, the ethnographic approach to study the couples' behaviour and observe their interaction within the naturalistic ART clinic environment might add richness to the data presented and could be achieved in future research.

Summary

In this chapter, I have described my rationale for choosing phenomenology to guide my research. I have discussed the concepts of Husserl's phenomenology in developing my methods. I have also addressed phenomenological inquiry as a research method and discussed how the issue of translated interviews can complicate the analysis process without invalidating it. I have described my research process by outlining how I collected and analysed the data. In the following chapter, I shall describe what it means to Chinese couples to receive ART treatment and how this impacts on their relationships and their perspectives towards infertility.

Chapter 4

Couples' experiences of infertility and pursuing ART treatment

Introduction

In this chapter, I shall explore the couples' reactions to infertility and their desire for participation in ART treatment conducted at the Assisted Reproductive Centre of Queen Mary's Hospital in Hong Kong. I begin by describing the demographic background and experience of each couple that took part in my research study. These accounts provide the context of the data discussed in this and the following chapters. In the second section, I begin by exploring the couples' reactions to their infertility problems within their personal and social context, before they embark on ART treatment. Each participant couple provided a narrative description that reflects how the threat of infertility affected their self-perception and image, and their sense of losing control over what is often naturally expected after marriage. Next, I move on to explore how the social and cultural perception of infertility affects the couples' reactions to infertility. In the third section, I attempt to identify the social meaning of the couples pursuing parenthood. I also address why the couples accepted ART treatment. In the fourth section, I highlight how existential time changes the couples' responses to their infertility and treatment. In the last section, I discuss the various issues arising from the couples' narratives in relation to their infertility and the meanings they give to their pursuit of ART treatment.

4.1 Descriptions of the participating couples

The results presented here are based on sixty single and joint interviews with fifteen couples that undertook the first cycle of ART treatment (see Appendix 6 for details). The participant couples' fertility problems and treatment are given in Table 4.1.

Table 4.1 Participants' fertility problems and treatment

Participant couple	Nature of the problem	Current treatment	Treatment history
Alice & Bob	Female factor	IVF	Ectopic pregnancy
Monica & Ian	Female factor	IVF	2 x missed abortions
Betty & Mike	Female factor	IVF	3 x IUI: unsuccessful
Carol & Jim	Female and male factor	IVF	3 x IUI: unsuccessful
Jane & Kelvin	Male factor	IVF + ICSI	1 x IUI : unsuccessful
Fiona & Craig	Unexplained	IVF	Herbal TCM to treat menstrual problems
Jody & Alec	Male factor	ICSI	None
Susan and Brian	Female factor	IVF	Therapeutic abortion
Samantha & Tim	Female and male factor	IVF + ICSI	IVF: unsuccessful
Lisa & Mark	Male factor	IVF + ICSI	Herbal TCM to treat sperm problems
Tina & Steve	Male factor	IVF + ICSI	None
Becky & Tony	Female factor	IVF	4x1 IUI: unsuccessful
Amy & Ben	Female factor	IVF	Stillbirth
Rose & Adrian	Unexplained	IVF	Previous termination 8 x IUI 1 x GIFT
Tracy & Victor	Female factor	IVF	7 x IUI: unsuccessful

With the exception of one, all the couples' first cycles of treatment were unsuccessful. Seven couples' problems were diagnosed as being attributed to female factors and five couples were diagnosed as attributed to male factors, three couples were diagnosed with an unexplained cause of infertility. Thirteen couples considered continuing the ART treatment with their remaining frozen embryos. One couple

decided to stop the treatment. One couple left the treatment cycle before completion and pursued adoption. The women were aged between 29 and 37 years and the men, between 29 and 40 years. All couples were married and had no living children.

To provide the most complete picture of the couples' experiences, I attach their biographies in chronological order according to their date of interview. The names used are pseudonyms and have been allocated in alphabetical order. Please see Appendix 7. To indicate the quotes from the interviews, the following system of notation is used: for example, the first interview with the couple (Susan and Brian) is indicated as Susan & Brian #1, the second individual interview for the wife is denoted as Susan #2, the husband's individual interview is denoted as Brian #2 and the final joint interview is denoted as Susan & Brian #2.

4.2 The Uncertainty Posed by Infertility

The inability to conceive a child is experienced as a stressful situation by individuals as well as couples. Some couples experience uncertainty due to not knowing whether or when they will be able to conceive their own child. Uncertainty affects not only the medical diagnosis, but also the efficacy and duration of the ART treatments.

Uncertainty is a dynamic state in which there is a perception of being unable to assign probabilities for outcomes that prompts a discomforting, uneasy sensation that may be affected (reduced or escalated) through cognitive, emotive or behavioural reactions (Penrod 2007). When couples experience infertility, they cannot predict when they will conceive even though they have been trying hard with different treatments (Raphael-Leff 2005). The repeated disappointment and failure of treatments provoke emotional reactions (Imeson & McMurray 1996; Holter et al. 2006; Peterson et al. 2006).

Being in doubt and not knowing

Some couples take it for granted that when they get married, they will have children

as and when they choose. They are surprised when it does not happen as they had planned. As Tina and Eric comment, they took it for granted that they would have their child at the time they wanted. After a long period of trying, they eventually went to seek medical help. During the treatments, they doubted that they truly had fertility problems and experienced uncertainty from not knowing the cause of their infertility.

Tina: We have been married for ten years...By six years, we were pretty much ready to have a child as we were financially stable and also we were getting older. In the beginning, we were not too concerned. But after one year, we felt that it was strange that we still had not conceived. During that period of time, I was very eager and desperate to have a child. At that time, I was quite upset and worried, as all our friends and colleagues had already had their children. (Tina & Eric #1)

Eric: Then we asked ourselves why we were having such difficulty in conceiving. My mother never pushed us to have children since my two brothers already have children. In fact, it was my two brothers who asked me why we were still waiting...

Annie: At that time, how did you feel?

Eric: Initially, we did not know what was happening and we felt strange and in doubt about why we could not conceive...Then after trying for two years without success, we came to realize that there must be a problem and eventually went to seek medical help. (Tina & Eric #1)

Alec and Jody used contraception with the intent of planning their family. When they made a decision to conceive, they discovered that they had fertility problems. In their quote, they painfully realize the wasted years in preventing conception.

Alec: When we first married, we planned our life goal and preferred to defer having children since both of us wanted a bit of time together and for our careers. We used contraceptives for a number of years. Then we stopped, thinking that we were ready to start our family...it really came as a shock to me realizing that in fact, I had sperm problems...what a waste of time of preventing conception in the first place!

Jody: I was upset too...all the way along, we were using contraceptives without knowing that we had a fertility problem in the first place. (Alec & Jody #1)

When the cause of infertility was unexplained, the couples felt frustrated and

disappointed, as they had tried everything to conceive but were still unsuccessful. The repeated failures caused them to doubt whether they would be able to conceive and to consider that they might have serious problems.

Becky: We have tried absolutely everything...measuring body temperature, taking clomiphene and trying IUI...every time, when the result was negative, we were upset, although at the beginning, we still felt o.k. but when the result was negative for the third and fourth time, we were very upset...thinking we must have a problem with fertility. Others do not have all these nuisances and they do not need to do anything and they are fine. We did absolutely everything but it was still not right...Does it mean that we have a major problem...do we still have hope? Are we going to continue the treatment?

Tony: Yeah...we were disappointed and we blamed ourselves and others too. I blamed myself in case I was the one who had caused the problems. In fact, there was no explanation and the doctor checked everything and all the results were ok. But then, why aren't we able to conceive? (Becky and Tony #1)

When the infertility diagnosis was confirmed, Tina and Eric were angry and disappointed as they had not anticipated any fertility problems. Tina thought that her irregular periods might be the cause but then they found out that it was problems with Eric's sperm. It was unexpected for them. They had feelings of hurt, from sadness to frustration.

Tina: Well...I am not too surprised as my periods are usually not in time. Initially, I didn't think it was a serious problem...I thought that the contraceptive pill might have had some effect on my body...well...this was what I thought at that time. Later, after the diagnostic evaluation, we found out that there were problems with Eric's sperm...Then we knew that we needed to go ahead with infertility treatment. We were referred to the ART clinic. I must admit that initially we felt very angry, and upset...All of a sudden, there was something coming up which was totally beyond our expectation. We were in despair... (Tina & Eric # 1)

Eric tried to gain a sense of control by minimizing the issue, as his friends had also experienced this problem. But he also asked, "Why me?" It had been a long while before they realized that they had infertility problems. Eric felt that a lot of precious time had been wasted in which they could have been dealing with the problem in a

different way.

Annie: Eric, can you tell me how you felt at that time?

Eric: Well, it wasn't a big deal really. Um...we have some friends...who also have this problem...so I felt it was not a big issue. Why are there so many people who don't have this problem...why me? But I did not have too much emotion towards it. In fact, I am thinking...at that time...we should have gone for a premarital check up earlier to investigate this. Then we could have prepared ourselves psychologically and we could have planned what we wanted to do...I mean...by the time we knew about the problem...yeah...we had wasted a lot of precious time...(Tina & Eric #1)

Eric's quote illustrates his way of coping by saying that other men have also had the same problem and it is not a serious one. His quote also reflects his sense of loss by asking why, and retrospectively that he would have preferred to have known about the problem earlier so that he could have dealt with it earlier.

Feelings of loss of control

Many couples find that they can exercise control over the timing of childbearing until their personal life goal has been accomplished. Yet when they are unable to achieve conception, they feel a loss of control regarding their reproductive choices and have to seek medical help. Thus, the sexual functioning of their bodies is called into question.

Alec: All along, I have had no problems related to health...I mean I am normal...this includes normal reproductive function. When I was at the clinic, I was upset that I would not be able to have a child in the normal way. All along I have taken it for granted that when I wish to have my child, it will be under my control...I mean full control, in the way that I decide when I have my child or when I don't want to have my child. It should be under my control. If I don't want it, it is my choice as well. But now the reality shows me that it is not as I thought...in fact, I cannot control *this* thing. Instead, I have to depend on others...I mean medical people to help me to have my child. This is something I have never thought about before. It has never been on my mind. Now, I am not in control of my own fertility! (Alec & Jody # 1)

Alec's diagnosis of male infertility was unexpected and his assumption that he was in control of childbearing was overturned.

Similarly, Alice expressed her frustrations at not being in control of conceiving her own child. She experienced disappointment and felt a sense of powerlessness. She attempted to control her way of thinking by staying positive.

Alice: Yeah...procreation is totally out of my control! I really don't like something that cannot be under my control...Being infertile is complete helplessness. I felt very upset about it, I cried...wetting my pillows and eventually falling asleep. Throughout all these treatments, I feel that I have to be optimistic...well...I don't have good ways of relieving my stress...I just cry and fall asleep. Then I told myself not to think too much...those things that I cannot control...then I told myself to stop thinking about it. And I feel more comfortable. But it depends on what I am thinking...sometimes I can control myself...leave it, not think about it...just keep reminding myself to be upbeat and not fall into a negative way of thinking. (Alice & Bob #1)

Other participants accepted the problem and tried to regain control by actively engaging themselves in seeking treatments. Kelvin's quote illustrates his initial disappointment but he accepted the reality of having no sperm and became actively engaged in pursuing ART treatment in order to rectify the problem.

Kelvin: Yeah...when I knew the sperm analysis result...telling me that I have no sperm, I was very surprised as I live a very healthy lifestyle...why me? I was upset...but in my life, I have experienced great drawbacks and hurdles...these, in fact, helped me to cope and to solve problems. Now, the problem is that I have no sperm and I do not let it make me feel down, even though I feel upset or what not. I have to face this problem and take action to solve it. I would rather not get too upset...you need to face the problem and find a solution to solve it. This may, perhaps, help me to be in control again. Therefore, it doesn't matter whether the ART treatment is successful or unsuccessful. The most important thing is that we have tried and are willing to face the consequence. It is better than doing nothing and passively accepting infertility. (Kelvin # 2)

The participant couples expressed their disappointment and sense of powerlessness in that they could not control one of their life goals. Kelvin attempted to face the

problem and find a solution to solve it. All the participants were undergoing the first cycle of treatment and thereby attempting to regain some sense of control. In Chapter 7, section 7.1, I address how the couples' perceptions of their sense of control changed after the treatment.

Altered self perception and self image

Both women and men generally expect their biological functions to be normal and that they will be able to reproduce (Hardy & Makuch 2002; Raphael-Leff 2005 Peterson et al. 2006). The discovery of infertility is an assault on their bodies (Gonzalez 2000). For the participant couples, infertility challenged their reproductive bodily functions. Both men and women expressed how infertility affected their understanding of themselves in gendered ways.

For the women in this study, the notion of altered body image was expressed in the context of a dysfunctional body system. They felt that their reproductive function was abnormal and although it was not something they wanted to have, they had to accept it as part of their bodies. Fiona described her reproductive body as dysfunctional but that she could not help it.

Fiona: When the doctor told me that my fallopian tube was blocked...I did not have many feelings about it. I don't pity myself really...I did not make it happen that way and if my reproductive bodily function wants to act in that way, I cannot control it...it is part of my body and I have to accept that. (Fiona # 2)

The men who had infertility problems expressed a similar view. However, they only focused on their reproductive function.

Eric: Yeah...I don't have any sperm so my reproductive function is not normal, but otherwise, I am healthy in all other aspects. (Eric #2)

Alec: Yes, my body is in a sense not quite normal but only in relation to the reproductive part. Otherwise, all my other parts are absolutely fine. It is not a big deal, is it? (Alec #2)

Some women equated infertility with an illness trajectory. Some female participants who had gynaecological problems, perceived the cause of their infertility as being related to the poor health of their reproductive function. From this perspective, they perceived infertility as an illness that deserves medical treatment like any other illness.

Carol: Um...actually, there are lots of people who really don't understand...and they will say...you just have to wait and then you will become pregnant...yeah... it hasn't been your turn yet...it will come...don't worry about it. I mean they really don't understand what you are going through...the waiting game...and they don't know that infertility is an illness. When you have some gynaecological conditions or similar problems, these illnesses could possibly affect your fertility. I feel that infertility is just like any other disease that requires treatment. Similarly to any illness, it deserves to be treated. Of course, sometimes you don't know how long that the illness will need to be treated!" (Carol # 2)

Tracy also regarded her gynaecological problem as an illness and placed her emphasis on trying to keep it at an optimum level and not let it grow worse. However, she did not expect that her condition would have such an effect on her fertility.

Tracy: When the doctor told me about my gynaecological problem, I had to accept it as an illness and hopefully try to keep it at an optimum level. I did not expect that such a condition would affect my fertility so badly really...well...this is my body and I cannot control it and have to accept it. (Tracy & Victor # 1)

Threat to Femininity

The women I interviewed in Hong Kong talked about the traditional traits of femininity in terms of mothering, caring and nurturing as supportive functions. The ability to nurture others is viewed by Hong Kong women as central to women's definition of self. Women perceive that their main body function is to nurture the newborn. As Fiona expressed, "Our body has been given this nurturing function. Why shouldn't we perform this role fully?" She feels that the female body is designed to protect and carry out the nurturing responsibility for children. The

inability to perform this function has negative connotations for some women, as its absence from the body is perceived as lacking.

The gender stereotypical role of *xiang fu jiao zi* (supporting their husband and rearing sons) has made Hong Kong Chinese women perceive that childbearing is essential to their married life. Women expect to be a mother after their marriage:

Jody: It is normal to get married and to have children. (Jody #2)

Becky: I think, being a married woman, you are expected to have a family. Otherwise, what is the point of getting married? (Becky #2)

Betty: I think *xiang fu jiao zi* is my life goal after my marriage. Not being able to have children diminishes my ability to perform this role. (Betty #2)

Carol: If I am unable to bear a child, I worry that my husband will abandon me. (Carol #2)

Carol's quote goes further to suggest that the inability to bear a child might have an impact on her marriage.

Threat to masculinity

In traditional Chinese culture, fertility, sexual ability and potency is equated to male strength and energy in life (Chan et al. 2002). The ability to bear children is very important in marriage. Male infertility carries shame and guilt (Lee & Chu 2001). The men I interviewed found it very hard to accept their diagnosis.

Kelvin: Actually, from childhood onwards...we hear that male infertility is shameful, nothing glorious about it. Sometimes, when in male conversations, they would talk about dirty jokes and say a curse on others like...hope you are infertile! Therefore male infertility carries negative connotations in sexuality. This is really bad for a man. In Chinese culture...male infertility is shameful and an insult...I think the majority of men would think this way too. Even for men who do not have fertility problems. They also share jokes about men regarding male sexuality. (Kelvin & Jane # 1)

Other male participants avoided addressing the impact of male infertility in relation

to masculinity. Instead, they kept asking themselves why they had the problem.

Steve: Actually...it is nothing special really. Yeah...I know one of my friends who had a similar problem...so this is not uncommon. But...I would like to know why there are so many men who have no problem...why me? Why me? Well, I really don't feel too much emotion about it. (Steve #2)

Only one man who participated in the study did not perceive comments of this nature in a negative way. Rather, Craig understood their jokes as a form of support and friendship. However, it is important to note that Craig's fertility was not in doubt.

Craig: Among my friends, they ask me why I go to hospital so often with my wife. I tell them that we would like to have a baby...we need a sort of treatment to help us. Then my friends make jokes about whether I am the one who is not able to perform...and they tease me and say...we will take you somewhere...and you will be able to perform...They just use jokes to talk about this aspect. I don't mind them asking me about this issue. I tell them and I don't feel that it is shameful or what not. (Craig #2)

Among the 15 male participants, Craig was the only man who was open to talking about this problem with other male colleagues. The last part of his quote appears to be just bravado on the basis that he was not responsible for the couple's infertility.

Feelings of personal guilt

Women viewed infertility as a form of punishment for their past mistakes and took personal responsibility for it. Rose experienced a sense of guilt and loss of self-esteem, both in failing to produce a child and in failing in her work. She projected her perception of being useless into her life by not socializing, as she felt that she had nothing to contribute in her conversations with others.

Rose: I felt that I was being punished...I have feelings of self-guilt and a sense of punishment...as if the whole world is blaming me...I mean I must have done something terribly wrong. Why do others not have this infertility problem, only me? I must have done something wrong. Yeah...I have self-guilt and I punish myself all the time. That's why...during that period of time, I stayed at home

and did not go out...I felt as if I had committed a lot of sins...as well as feeling useless because we had tried so many infertility treatments and none of them were successful...plus I didn't want to socialize with my friends as I had also quit my job. Therefore, I was a complete failure in all aspects of life. Even if you go out...what can you say? Most people have children and they all chat about bringing up their children. And you feel too uneasy to join in their conversations...and if people talk about work, you have nothing to say as you are unemployed...I really feel I have very low self esteem with no achievement in life. (Rose & Adrian #1)

Alice thought that her past unplanned pregnancy which ended as an ectopic pregnancy, was the cause of her fertility problems. Her husband, Bob, regarded the ectopic pregnancy as something inevitable and felt that she should not take so much personal responsibility. Otherwise, he thought that the past events would affect her emotions and indirectly affect her fertility.

Alice: Well...I got pregnant when we were students at university. The pregnancy was ectopic and I had to have an operation. It did not bother me too much as I was young. Now when I am struggling with conception...I think about what if the ectopic hadn't happened, perhaps, we would not have this fertility problem right now. Although some research studies state that ectopic pregnancy does not affect future pregnancy...I feel that there may be a little or some truth in it. And if...we had protected sex when we didn't intend to have baby at that time, I might not have had the ectopic...Yeah...if it didn't happen, I might have had a normal pregnancy by now. Sometimes, I feel it was a punishment for me.

Bob: Well...in that case we did not know why it became an ectopic pregnancy! But I hope you don't blame yourself or me...as this may cause it to be more difficult for you to get pregnant. Yeah! I think that nobody wanted it to happen that way...it was inevitable and we should not blame ourselves too much. I am not sure whether you are blaming yourself or not...I hope not. However, if you choose to blame...well... I won't mind if you blame me. (Alice & Bob # 2)

Both Alice and Bob reviewed their past experience of losing a pregnancy. Their quotes reflect their mixed personal feelings of guilt and blame.

In Monica's case, she did not feel that she carried personal responsibility for their infertility problems. She took a more philosophical Taoist stance. Her quote reflects

her personal experience of not wanting a child, then wanting one and losing a pregnancy. She felt that even though she had been committed, the baby was still taken from her. She put her blame on *Tin Yie* (destiny). In her understanding, even after all her effort and experience, she felt that she was not supposed to have a child.

Monica: It is my personal perspective...my inner feelings that I would expect a failure in my ART treatment...because I feel that my destiny is not to have a child...why...when I did not want to have children at a younger age, I got pregnant. When I accepted the pregnancy, then the baby was not growing and I lost my baby. I was very upset when I had the D&C. When I accepted the pregnancy, the *Tin* (destiny) took it away from me. For the second pregnancy, I ended up with an ectopic pregnancy...again it ended with a D&C! I felt very disappointed and distressed...I suppose it is *Tin Yie* (destiny) that I will not be mother. (Monica #2)

The feelings of guilt and blame were mixed with emotion and past experience. Some participant couples experienced guilt for their past actions, some blamed themselves and others blamed destiny. The impact of ART treatment also drew them closer to their spiritual beliefs and in Chapter 6 section 6.4 I highlight how spirituality enhances the participant couples' abilities to deal with the failed outcome. In Chapter 7, section 7.3, I address the impact of spiritual dimensions on the couples' understanding of their infertility problem.

4.3 Infertility as uncertainty about self and others

Social stigma

Male infertility has negative connotations of a potentially stigmatizing nature. A stigma is defined as a negative sense of social difference from others, outside the social norm, which is both deeply discrediting and devaluing to the individual (Goffman, 1963). The male participants expressed how male infertility carries social stigma and as Mark comments: "It isn't something to be proud of". Kelvin's excerpt (p.95) illustrates his traditional views about male infertility as shameful and insulting

to his manhood.

He further emphasized that society accepts women as being the cause of infertility but not men. Therefore, he openly put the blame on his wife and denied his own fertility problem in public. Keeping his infertility secret meant he could avoid discussing his problem with others.

Kelvin: Yeah...actually other people cannot help you...even your family or good friends...in fact, traditional society does not think in that way. As a man if you fail in this aspect, you definitely feel the social pressure....Oh!...that's why when my relatives or friends ask me why we are still not having children...I would rather say that it is my wife's issue...I mean it is more acceptable if it is the woman's problem...I don't think I would mention that I am the one who has the problem. I know that traditionally, Chinese men do not think in this way either. It is more acceptable if it is due to a female problem...but if it is a male problem, it isn't the same. Therefore, I seldom tell others about this issue. I keep it between myself and my wife only.

Jane: I really feel for Kelvin and it is...much harder for him to bear. I do agree that there is no point discussing it with others as it is our private matter. (Kelvin & Jane #1)

Becky and Tony also shared similar views, including that infertility can stir up elements of guilt and blame. Even when the cause was unexplained, they tended to keep it secret and not share it with family or friends.

Becky: I think it is a much more personal thing...not to be discussed with friends or others. You don't know if others will talk behind your back (Becky and Tony #1)

Brian went further and emphasized the male culture of not talking about their own sex life with their friends.

Brian : I think...first of all...I feel that this is a very private matter. If I talk about it...I need to mention my wife's problem...and that relates to a lot of things...for example, why do her eggs have problems etc...Actually, I am not willing to share these things with my friends. To me, they are very personal between my wife and me and not others...therefore, I don't need to tell others about our fertility problem. And men seldom talk about these things either so there is no place to open this dialogue. If you compare this with

women, it might be different. For men, we seldom talk about these things in our daily conversations. Yeah...I mean we seldom disclose anything about our health issues and obviously not our sex life or fertility issues really! For my wife, I think she has told her friends...I mean she has shared her experiences with her friends. For men, there is no chance and no way to talk about these things. (Brian # 2)

The degree to which the couples chose to keep their infertility secret varied among the participants. One of the key motivations for doing so was to avoid discussion of the infertility problem with family, friends and colleagues. There is silence in men's talk around other people's fertility or infertility because men regard infertility as a personal matter, and there is no public space for men to openly discuss their sex life with others. This finding was similar to Lee & Chu's study (2001) which showed men unable to discuss their feelings with their male friends and with a tendency to avoid, deny or mute their emotional experience (Phipps 1993). In addition, Brian also made the gender assumption that women disclose their feelings more easily with each other. In Chapter 6, I address the issue of selective disclosure adopted by the couples while undergoing ART treatment.

Threats of losing family line

In traditional Chinese culture, marriage was perceived as a means of forming a family, giving birth to children, continuing the family line, increasing the family labour force and increasing the couple's social network (Lee & Kuo, 2000; Zhang, 1999). Thornton and Lin (1994 p.27, 32) showed that "the major line of kinship was the male one and that most properties, labour and resources were still controlled by males." Therefore, the preservation of male lineage shapes the preference to have sons in the family. However, Yan (2003) argues that while state-sponsored social engineering programs and national policies have reshaped family life and structure, they have weakened traditional family values. Although Hong Kong citizens are not restricted by the One Child Policy, like in mainland China, and neither is there a state policy on birth control, as described in Chapter 2, section 2.2, the traditional cultural view carries strong emotional connections for many men, particularly those who are

the only sons. Infertility means not only the inability to pass on the family name but also the family genes. As Adrian put it, his desire to have his own child was something like an artist making his own creation.

Adrian: When I was a child, I liked to play with other children...it was such fun. When I thought about having my own child, I imagined my child as an extension of myself...I mean my genes, my character and so on. Of course, as my wife is such a beauty... my son or my daughter will have her genes and character. Having a baby is a creation. I'd really like to create this person, bring him or her up and pass my skills and knowledge on to them. From the artist's perspective, when he draws a picture, it does not really matter whether other people admire it, the most important thing is that you admire your own creativity...your own masterpiece. (Rose & Adrian # 1)

Kelvin shared similar views to Adrian and further emphasized the impact of infertility in that he would not have the chance to bring up a child. He also brought up the issue that if one of the spouses passed away, the other would be very lonely on his/her own and having children would protect their old age.

Kelvin: Actually, my wife may feel that it really doesn't matter if we cannot have our own child. Right now, it doesn't bother her. Well...an ideal family should have children. It is good to carry on the family names and family genes for the next generation. I try to explain this to my wife by saying,...as we are getting older, you will regret it if we don't have any children. Right now, we are enjoying two people's lives...we are still young and can enjoy life. But what happens when we get old...and one of us passes away and leaves the other on his or her own? The traditional view of having children is to protect you. I mean whether they will look after you when you get old is a different matter. But when you are infertile, you will definitely not have the chance to bring up your child at all. (Kelvin & Jade #2)

In Chapter 2, section 2.1, I introduced the Confucian concept of filial piety. The famous Mencius's well-known teaching "*Buxiao you san, wu hou wei da*" (not having descendants is the worst violation of filial piety among the three violations) showed the importance of continuing the family line. On the other hand, anthropologist Yunxiang Yan's (2003 p.218) ethnographic study of Chinese villagers shows a new fertility culture centered on the happiness of the conjugal family rather

than the continuation of the family line. The diminishing of ancestor worship, the minimization of filial piety by the younger generation and the new status of children have all contributed to this change. Hong Kong is a mix of Chinese and Western culture and the notion of filial piety has already been reshaped together with the change in social structure and policy. The financial implication of bringing up children is the most important factor in a couple's decision to procreate (Family Planning Association of Hong Kong 2007). There are couples who reject the traditional view of having children as a continuity of family line. In the following quote, Ian expresses a different viewpoint about filial piety and presents his individualistic thoughts.

Ian: Really I tend to ignore the notion of filial piety regarding the next generation. This will not be my consideration for childbearing. I feel...having children to safeguard you when you are old...the child grows up and they have their own way to go...I mean they will get married and have their own family and career. Society has changed a lot. When children grow up, they have their own life. I mean we are ourselves and they are themselves...it is not a practical way to think that rearing children is for the sake of your old age. Although some children do care for their elderly parents, this is not guaranteed. But I still think that in our contemporary society, children and parents will not live together as they did in previous generations...therefore, you could still be on your own. Rather, I feel that it is very important to be happy and healthy...healthy aging...ha! It really isn't a good idea to bring one or more people to this earth anyway. The world is already overcrowded. Having children to safeguard your old age...this traditional view...it is absolutely not my preference. (Ian & Monica # 1)

Ian's viewpoint reflects the contemporary individual who is concerned with the integral wellbeing of the family and the couple's happiness. This is supported by the findings of Yan's (2003) study in which individual rights and happiness challenge traditional filial obligations.

Kelvin brought another, different perspective to having an heir. His interpretation of continuing the family line was related to having a child. It did not matter whether this was a son or a daughter. He also put forward the traditional view that the nuclear family should consist of a father, mother and children.

Kelvin: Actually, I feel that the traditional understanding of having an heir to continue the family name and generation has changed a little bit. The traditional view about having a son to be able to carry on their family name is very old fashioned and outdated. I just feel that it doesn't really matter whether you have a son or a daughter. To me, an ideal healthy family must have a father, a mother and their own biological child. Then this family is complete. Whether you want to have two or more children is another matter. In addition, it is a blessing to be able to procreate and to be able to continue the human generation. (Kelvin & Jane #1)

Kelvin's quote suggests that having a child is more important than the gender of the child. The traditional son preference to carry on the family name is well documented in Chinese kinship studies (Yan, 2003; Arnold and Liu, 1986; Wolf, 1985). However, the changing economy and social change in Hong Kong have shifted the traditional fertility trend. Young Hong Kong Chinese couples perceive that having a child is their own personal choice, rather than being related to the traditional patrilineal descent which only links up the males (Family Planning Association of Hong Kong 2007).

Perceptions of social blame

The theme "being blamed by others" was, for both men and women, embedded in their dialogue. The issue of self-blame has already been discussed in the previous section. In this section, the couples describe how they perceived others' blame for their infertility problems. The cultural assumption that infertility is always the woman's problem can penalize women and inevitably women are always blamed. In Lisa's case, she was relieved that she was not the cause of their infertility, as she anticipated that if it had been her problem, she would have suffered the blame from her husband's family.

Lisa: It was an unexpected surprise that the infertility problem was due to Mark. We are disappointed...Though it sounds terrible, however, I am glad that I am not the one who has caused it. Um...I would rather not be the one with the infertility problem...you know. Now it is Mark's problem, not mine. As I know that my in-laws would have put the blame on me if it was my problem (Lisa & Mark # 1)

In Susan's case, she felt a lot of pressure from her in-laws, that they blamed her for the infertility. At the time of interview, she was very emotional, especially when she recalled her experience. Her quote illustrates her hurt, humiliation and uneasy relationship with her in-laws.

Annie: You have been receiving infertility treatment for nearly four years now. Can you tell me what your in-laws' reaction is towards this?

Susan: Um...I experience a lot of pressure and stress from my mother-in-law. My father-in-law is alright as he feels that whether we have a child or not, it is entirely our own decision. However, my mother in law is different. She seeks every opportunity to get involved and help us...like cutting out newspaper articles related to successful treatment for infertility; telling me who are the best obstetricians for succeeding in getting women pregnant and all sorts of other advice...All these have imposed emotional strain and stress on me. At every Chinese New Year, she reiterates that we should be able to give out *Lai See* (red envelope as a monetary gift which is given during Lunar Chinese New Year to children). On one social occasion during a dinner gathering, she openly asked me whether I was able to ovulate or not! I was so embarrassed and felt humiliated. Everyone was enjoying their meal. I really didn't understand how an earth to respond. I also wondered how she could possibly ask such a question in public. I really feel that she was so insensitive about my feelings. I also feel that she blames me for our infertility problem, that it is solely my fault and responsibility. (Susan and Brian # 1)

Her husband, Brian, responded by saying: "I cannot remember my mum asking this question at the dinner gathering." Furthermore, Brian went on to express his taken-for-granted assumption about the typical relationship between women and their mothers-in-law. That the relationship was always under strain and that it was a common phenomenon. He perceived his mother's attitude to be a way of expressing her concern for him.

Brian: I know that my wife is under a lot of pressure with the in-laws issue. But I do not have the same reaction as her...I think that it is quite normal for all mothers to ask about having a grandchild as they expect their children to have babies after their marriages. All mothers want to have grandchildren...I feel that my mother cares too much. And of course during festive time, it is a time of

family gathering and it is easy to bring up this issue. I really don't feel the need to worry about it at all. Yes...sometimes she will ask me if Susan wants to have baby...then I will respond to her saying that we are planning to have babies...it won't be too long and not to worry... (Susan & Brian #1)

Their differing interpretations of this in-law relationship could create additional strain on Susan and Brian's relationship.

4.4 Doing something

Meanings of parenthood

The interview data illustrate how pursuing parenthood carries complex meanings for the participant couples. The views expressed show how both men and women share the traditional view of the ideology of motherhood and fatherhood as their social identity. Motherhood and fatherhood are perceived as symbols of maturity and sexuality, and are anticipated and expected after marriage. The need to experience parenthood was passionately described as the ultimate driving force for the couples who participated in the ART programme, particularly by the female participants. The couples described it as an 'expected', 'normal and natural' desire to want to become a parent after marriage. As Betty commented: "It is expected that every married couple will have their own children."

Mark and Lisa shared similar views to Betty. Mark emphasized that having children was natural and expected and that parenthood was part of life's progression for him and his wife. Lisa expressed her desire for motherhood as something she was ready to experience at this stage in her life.

Mark: Yeah...why do I want to be a parent? To be honest, I haven't thought about this question before. I just feel...that it is part of life really after you get married, that you will eventually want to have your own child and be a parent. It is normal and expected to procreate and to continue the next generation. It's really a natural life progression for me and my wife to be parents.

Lisa: I don't think that motherhood is a must for every woman. But I do think that it is a very good learning experience. What I mean is...at the end, we should have our own children and be able to take on responsibility. If you have your own child, both of us (me and my husband) would need to be fully committed. I perceive parenthood as a life progression as well as a learning process. And it is an important part of your life. (Mark & Lisa # 2)

Lisa went further to emphasize how parenthood can be seen as a symbol of maturity and commitment to marriage. She perceives parenthood as an integral part of her life journey.

There was a strong feeling among the couples that a married life with children is one that is complete and fulfilled. And that parenthood is a natural life progression for both women and men.

Betty: Um...I feel that not being able to give birth to a child...life seems to be missing something. Though I am not desperate and insisting that I must go through this...But I do feel that going through childbirth and childbearing, our married life would be more fulfilled and complete. I mean having children would make our family life complete. We will try our best to have our child...I mean I will try my best. (Betty # 2)

Kelvin: A family is complete when you have children. Being able to produce a next generation is important. (Kelvin #2)

It was as if there was an emptiness in the couples' lives that could only be fulfilled by the birth of a child, as this particularly powerful statement by Carol suggests:

Carol: I am determined to get pregnant. My life is not going to carry on until I conceive. I am not planning anything for my work now and I do not want to pursue my career dream until I get pregnant. (Carol # 2)

Rose shared a similar view: "My life's purpose is to have my own child...No matter what...I need to be successful in the treatment and I am not giving up until I get pregnant. (Rose & Adrian #1)

Another prominent theme expressed by the participant couples was their interpretation of 'a family' as a unit consisting of a male and female in a heterosexual

relationship with children. A male and female without children, however, were described as a couple.

The desire for childbearing was also driven by their spouse's intention. Both male and female participants recognized how having their own child meant a lot to their partners.

Jane: I don't really mind whether or not we have our own child. But I know that my husband really wants to have a child and he has talked to me about it. Now that I am a bit older and have enjoyed my freedom, I feel that I am ready and also agree with his desire...I mean...I am ready to have our child. (Jane & Kelvin # 1)

Fiona: I know my husband really loves children and he has always wanted to have our own children... (Fiona #2)

On the other hand, Carol explained that her reason for pursuing ART was in order to strengthen her marital relationship with her husband.

Carol: Um...um...if we have a child...I think it will strengthen our marital bond. I mean it will help to reduce extramarital temptations as he will think about his child. In this way, I think having my own child will act as a safety net for our marital relationship. (Carol # 2)

Studies from Taiwan illustrate that failing in childbearing and raising children may threaten a marriage because of the cultural expectation of maintaining the ancestral line (Lee & Kuo, 2000; Lee et al., 2001; Chang & Mu 2008). In this study, the findings show that some participant couples still hold to the traditional cultural expectation that women will assume the role of '*xiang fu jiao zi*' (supporting her husband and rearing sons), and that failing in this could pose a threat to the marriage, even cause divorce. Carol's quote reflects her traditional belief that having a child will safeguard her marriage and improve her marital relationship.

Pursuing ART treatment

The strongest intention of the participant couples undergoing ART treatment was their desire to have their own biological child. All the couples in this study were

married, as this was one of the criteria that they needed to meet for the purposes of the Hong Kong Health Authority infertility care service. The data demonstrate the importance of using their own genetic material, in fact, this is one of the reasons why the participants felt comfortable with the process. As Jim commented: "ART is a technology, it uses our sperm and egg so it is truly our genetic make up...and I don't see any problem." The phrase *our own genetic make up*, like "blood", symbolizes the proper relationship between parent and child in the Chinese cultural context. This ideology of genetic material is also prominent in the US, as shown by Modell (1989), who identified the strength of cultural assumptions about what lies between parents and child and how this is grounded in shared biological substance.

Susan also indicated that using their personal genetic material was a major reason for pursuing ART treatment. The resulting child would be related to both parents, carrying genetic materials from both mother and father equally.

Susan: When we told my mother-in-law that we were going to have ART treatment...the first question she asked is whether it would be using our sperm and our eggs...and if the baby's genetic make up would be from us. Of course, Mum. Both my husband and I feel strongly about using our own sperm and eggs. Otherwise, we may not have considered this form of treatment. (Susan and Brian # 1)

The participant couples' quotes may be understood as a contemporary view on the importance of the traditional concept of lineage preservation.

The couples described ART as "a high tech process" in which the doctor was giving a helping hand to achieve conception. They did not regard ART as a natural method of conception. But they were willing to accept help from the doctor as long as the genetic materials came from both sets of parents. Their emphasis was on the biological outcome rather than the technological aspect of the conception.

Brian: The doctor suggested ART for us. I believe it is because we cannot conceive naturally by ourselves.

Susan: More than this...I think because I have endometriosis and a past history of miscarriage...and of course, we have tried natural conception for over two years and were still not successful.

Brian: While we were on the waiting list, we still prepared and

tried natural conception as far as possible. We thought if we still did not succeed, then we would go for ART treatment because I still feel natural conception is the best...and if of course, we are still not successful, we need help from the doctor and we will go for ART. (Susan & Brian # 1)

Susan and Brian perceived ART as a modern medical technology which could help them to pursue their desire for parenthood. They commented that ART was not a natural form of conception. However, they accepted the fact that they were unable to conceive naturally and that ART as a technology could help them to achieve conception.

Other participant couples, like Lisa and Mark, perceived ART as a form of technology to assist them in conception. These couples tended not to mind too much whether the actual process was natural or not. They focused on the outcome that would help them to have their baby with the same genetic makeup from the same set of parents.

Lisa: I think of ART treatment as purely technology...because if you cannot conceive by yourself, you use this technology to help you. Of course, if you can conceive naturally, you wouldn't have to go through troublesome procedures such as having nasal sprays and painful injections and so on...ART is just technology really.

Mark: ART is absolutely related to medical technology. It is not extraordinary really...just a form of treatment. (Lisa & Mark # 1)

4.5 Temporality: Infertility and ART treatment

Biological time clock

Time has an existential meaning. There is the physical time clock and the personal inner time. The women I interviewed were aware of their biological bodily function and felt that their biological time clock was ticking, so they had limited time in which to conceive. Their general feelings were that the older they got, the more difficult it would be for them to conceive. This indirectly urged them to undertake ART treatment.

Susan: After we had been married for four years, I felt that I had done enough for my career and I also considered my age...and people say that if you want to start a family...start early...and also with my past gynae history...my doctor says the female reproductive and physical function drops quickly after you are 35 years old. I also considered other factors. I am not sure how many children I want. If I want to have two or three...then I should start earlier, in particular for the first child. You know, as a female...our time is limited and you will not be able to...if you get too old.

Brian: The doctor referred to her reproductive time limit...I feel that we have tried to conceive naturally for over two years without success...no result. And we so are going to have ART, it is better to do it early...as her time is running out. (Susan & Brian # 1)

Susan is aware of her biological clock and her husband Brian is also concerned about her limited biological time for conceiving.

Fiona: After five years of marriage, we would like to start our family but we cannot conceive. We went to see different doctors and had various examinations...or sought traditional Chinese Medicine. Over such a period of time, we are still not able to...as times goes by...now I am 37 years old...I really feel that I am getting old now. I suppose the older I am, the more difficult it is to conceive. My time is ticking and my husband is so eager to have a baby. Therefore we decided to go for IVF treatment (Fiona & Craig # 1)

Fiona experienced the passing of her time through different treatments and still not getting what she wanted. She was conscious of her biological clock as a determining factor for her to take up ART treatment.

Inner personal time

The inner personal time reflects the readiness for pursuing parenthood and this also means the readiness to start the treatment. Some couples use the word “right” time as time giving them the opportunity to start treatment.

Tracy: I did not realise that the time had passed so quickly...we have been trying to have a baby for nearly 10 years now. We tried for some time and then had a set back. Now we are back to trying

again...it seems that we are on a train...on and off and back again for the treatment. I hope this cycle will be successful. If you count on nine months for pregnancy...by the time I conceive, I may well be over 40 when I become a mother... (Tracy #2)

Changing perceptions of time

The temporal dimensions of past, present and future constitute the horizons of the couples' temporal landscape. The past changed how they perceived their future. Time changed how the individual viewed his or her infertility issues. Carol's quote illustrates how she felt jealous and angry when she learned about her friends' pregnancies or was in the presence of others who had infants. Over a period of time, she got over her struggle and gradually changed her attitude towards other women who were pregnant. Eventually she came to accept her own situation. Taking on the infertility treatment gave Carol some sense of hope for the future.

Carol: Actually...at the time when my friends were expecting... I felt upset and sad as they had all married later than us. Then...I hated myself...though I knew that I was supposed to feel happy and congratulate my friends. But deep down in my heart, I felt so angry and uncomfortable...well, after a year or so...I slowly and gradually accepted the fact. When my friends got pregnant, I would perceive it as absolutely normal, that nothing was wrong and I tended not to compare myself to them anymore. I have accepted the fact that I am not pregnant right now and as I am having treatment...eventually I will get pregnant. (Carol #1)

Time also affected how the couples perceived their desire for parenthood. The data illustrate how they were ambivalent towards their desire for parenthood. On the one hand, this was their driving force for pursuing ART treatment, but on the other hand, they experienced doubts about the real benefits of childbearing. The following excerpts illustrate the couples' ambivalent feelings towards childbearing.

Monica: I have no problems communicating with my husband. We live together happily and we have common interests. I think that even if we didn't have children, it would not affect our marital relationship. Having said that, however, having our own child would be like building a bridge between me and my husband.

Ian: She would like to have children. I am happy whether or not I

have my own children. It doesn't really matter. Perhaps to have our own child is for the continuum of our life. If I do not have my child, I have more freedom. I can live more freely and enjoy our life. To me, this matter does not affect me and I really don't care. (Monica & Ian #2)

Monica's and Ian's quotes illustrate their ambivalent feelings towards childbearing. Monica, on the one hand, felt that being childless would not affect her marital relationship but, on the other hand, commented that having a child could act as a way of bringing her and her husband closer together. As for Ian, he was even more ambivalent than Monica in giving contrasting views about having or not having a child.

For Lisa, her ambivalent feelings about childbearing fluctuated as she felt she was losing her freedom in life, but she also expressed that childbearing was an experience that she wanted to go through.

Lisa: I want to have a child...but I am indecisive. Sometimes this desire for childbearing fluctuates. Sometimes I feel that being a parent means you lose the freedom to do things that you really like; being a parent, you have a lot of responsibility...but I suppose there are lots of good reasons to have your own children. Maybe for me...I have gone through all these excitements in my career and social life and now I want to have this experience and I am ready to be a mother...therefore, now I am playing a more proactive role in pursuing ART treatment. (Lisa & Mark # 1)

Lisa's quote clearly demonstrates her experience in grieving for her freedom and lifestyle as she also attempts to adjust to her loss.

The feelings of ambivalence towards childbearing change over time. In other words, the desire changes over time. Each participant couple described the previous experience that shaped their present experience. Victor articulated how his ambivalent feelings towards childbearing changed as time went by. Perhaps this would be one way of helping him to balance his disappointments.

Victor: Actually, you may feel that I am ambivalent about having our own child. Perhaps this is just a matter of time because...if you

had asked me this question a few years ago and if you ask me the same question now...my answer could be different. It is because in the early years, we tried a number of treatments...in particular we spent a lot of time, energy and money in the private infertility treatment. I think at that time, obviously we very much wanted to have our child. But over a period of time...we needed to find a solution to balance our inner emotions...what should I say...well...perhaps our perception towards childbearing has changed over time. Right now...I would think that we will have a go. However, it won't be the end of the world if we don't have a child. We may perhaps need to accept that we will be childless. There are a lot of people like this anyway" (Tracy & Victor # 1)

The couples that had been through different infertility treatments experienced numerous drawbacks without any final success.

Experience of the past influenced the way the current treatment was experienced. Tracy and Victor had been through various treatments without success, their past affecting how they perceived their upcoming ART treatment. Their repeated unsuccessful outcomes in infertility treatments had directly altered their expectation of the coming ART treatment. They appeared to be more equivocal about the outcome.

Tracy: I told myself...yeah...if you don't have hope, you don't have disappointment. If you persistently want to have a successful outcome, and the treatment fails, you will feel so disappointed. Therefore, I tell myself to be permissive and not to have any hope. I mean you hear a lot of stories when you go to the clinic. The majority of women have a failed outcome anyway. Well, it is better for me not to have high expectations. So when the cycle fails, it is not a big deal. I feel that for the whole treatment, the things I need to sacrifice will be my time plus my emotional response...It is not a big deal really and I am determined not to get myself upset about it. Therefore, the only loss I will experience will be a failed outcome. I mean...no baby. When you weigh up the balance, I am still taking the opportunity by having ART treatment. (Tracy & Victor # 1)

By lowering her expectations, Tracy helped to ease her disappointment.

Discussion

Infertility and ART treatment affects both partners within a couple. The findings demonstrate how the couples reacted with anger, resentment and uncertainty in the initial stage of their infertility problems. Their reactions concur with other infertility studies (Mason, 1993; Webb & Daniluk 1999; Gonzalez 2000). Infertility carries negative connotations for both men and women. The findings of this study show that, like women, infertile men also suffer from low self-esteem, isolation, blame and sexual inadequacy when they are struggling with male infertility (Lee, 1996; Webb & Daniluk 1999; Throsby and Gill 2004). Infertility threatens their sense of manhood within their self-perception as well as in front of others. The male participants openly admitted that they would deny their diagnosis and hide their emotions. Their wives also expressed their willingness to keep their infertility a secret, not to disclose it to family members or others. For women, infertility relates to a failure to nurture and to care for the next generation. Chinese women express their desire to nurture and care for their children as part of their female role expectation. The findings of this study demonstrate that both men and women perceive reproduction to be a normal bodily function. These infertile Chinese couples perceive infertility as an illness that needs medical treatment.

In contemporary Hong Kong, due to the social, economic and financial changes, the traditional views on filial piety emphasise having more children, in particular sons, to carry on the family lineage - the provision of support and respect for parents has changed. As described in the Introduction, Hong Kong was returned to mainland China in 1997, however, it remains a special administrative region with a different legal structure, and Hong Kong couples still enjoy the freedom of childbearing without the Once Child State Policy imposed in China. The findings of this study support Yan's (2003) comments on how individual rights and the changing status of children have an impact on the traditional culture of filial piety. For the couples interviewed, having children does not serve to protect people in old age. In general, they commented that traditional filial piety does not have the same influence in present society as before. This change poses a mixed picture of how couples and

society view infertility. The findings reflect some traditional views of filial piety in which having children is important for the continuation of family lines (names, and in particular, having a son). However, there are also couples who take the modern view that reproduction is more a personal achievement, that the couple want a child for their own reasons. When I analysed the couples' quotes, the men who suffered from male infertility and were the only sons in the family, appeared to have a stronger focus towards family lineage. Whereas the males who were not the infertile partner, appeared to have different viewpoints and even opposed the traditional filial obligation to reproduce in order to continue the family lineage - although they equally expressed that having a family can be good for marriage (see Ian's quote, p.102). Therefore, caution needs to be taken when interpreting modern views about pursuing parenthood. I argue that the Confucian idea about filial obligation is not being taken as seriously as before in modern society – and that social process, economy and financial factors have become more important factors for Hong Kong Chinese couples to consider when deciding whether to embark on parenthood.

Another changing aspect of family relations places less emphasis on the parental influence and the power exerted by the in-laws. In traditional culture, women were placed in a more subservient role and the mother-in-law had much power and influence over the family. The findings also support the change of parental influence among the 15 couples, in particular the in-law relationships, except for Susan and Brian, where Susan's quote illustrates her interpretation of her mother-in-law's comments about her fertility problems. The rest of the couples stated that their in-laws were less interfering of their private lives including their reproductive choices. For some couples, their parents were not even aware of their infertility problems or their treatment.

The meaning of pursuing ART treatment was reflected at a personal, social as well as cultural dimension. At a personal level, ART was a method of resolving infertility problems as well as serving to fulfil the personal desire for parenthood. In this study, all couples had to be legally married before they were eligible for the ART programme, which was government funded by the Hong Kong Health Authority. All

participant couples used their own sperm and eggs. The couples' quotes also emphasized the importance of using their own genetic material (both sperm and egg from the same set of parents) to produce their biological child. The findings concur with Glover et al. (2009) that men feel more under pressure to protect their family's genetic heritage, i.e. the paternal line. As Parks (2009) states, the use of ART has apparently served to strengthen cultural norms of the heterosexual nuclear family: that is, one father, one mother and their genetic offspring. At a social level, the participant couples expressed a mixed picture of social expectations of parenthood after marriage. The traditional female role expectation as '*xiang fu jiao zi*' (supporting her husband and rearing sons) was still reflected by some female participants. Carol's quote (p.107) reflected her belief that having a child would safeguard her marital relationship.

When I explored the couples' reactions to their infertility, I found that they had been through hope and disappointment with various treatments. The majority of couples had been struggling with infertility problems for a long period of time. Some expressed their traditional concepts of the nuclear family in which they should have their own children to make a marriage complete. Others expressed their contemporary views that not having children in their married life is also acceptable and this should be the couple's decision and choice. The notion of chance in taking on ART treatment was also expressed. These couples held a strong view of at least "You have taken the chance and can have no regrets in the future". To my surprise, they appeared to understand the low successful outcome of ART treatment. Even so, they perceived that ART treatment offered them a glimpse of hope in achieving their desire to have their own biological child. In my initial analysis, I was looking at their decision-making process for choosing ART treatment. However, when I further immersed myself in the data, I realized that the couples were telling me what lay behind their decision-making process and not talking to me about who was making the decisions. They all wanted, not only a child, but also a biological child where both sperm and egg had come from the same set of parents.

Infertility is closely associated with the temporal dimensions of the past, present and future. Both women and men referred to their biological clock. The time was right and they were eager to embark on their ART treatment. The couples mentioned how time had changed how they reacted to and perceived infertility. At the time of the interview, they had passed through the initial surprise, disappointment and shock about their taken-for-granted normal reproductive function and about being in control of the timing of their own reproduction. I shall readdress how the couples' perceptions changed after they had completed their first cycle of treatment. In the following chapter, I shall address the couples' lived experiences of the treatment process and their ways of dealing with the ART outcomes.

Chapter 5

Engaging in the ART treatment process

Introduction

Infertility is not a life-threatening medical condition, and can potentially be remedied through ART treatment. ART treatment has been viewed as a series of stages through which couples go in order to pursue their goal of having a child. Studies have found that while ART offers hope for infertile couples, the procedures can be physically, emotionally and financially demanding and do not necessarily guarantee success (Weaver et al. 1997; Hammarberg et al. 2001). Many women experience anxiety and stress, cycles of hope and disappointment and lack of control during the treatment (Imerson & McMurray 1996; Redshaw et al. 2007). Other studies examine the coping styles that couples use during treatment (Peterson et.al. 2003, 2006, 2009; Schmidt et al. 2005). In this chapter, I focus on the concerns and reactions of couples during their first treatment cycle. I show how the couples attempted to normalise the treatment process in order to deal with the uncertainty, anxiety and stressful nature of it. I also explore how they perceived the demands posed by the treatment and adopted cognitive, affective and behavioural strategies to deal with the process.

The first section of the chapter is an exploration of the couples' reactions to the treatment. I begin with a discussion of how the couples normalised ART treatment as being part of the medical treatment needed to assist them in achieving conception. Without prompting, the interview quotes illustrate the anxiety and stress associated with the physical and emotional demands of the treatment. The narratives reflect efforts to minimize their discomforts in order to achieve their goal for a biological child. These quotes also reflect their trusting relationships with their doctors as they relinquish control to the medical practitioners. I also address how the participants realize their acceptance of the change from private procreation to the public sphere in order to be 'assisted' in achieving conception. The second section of the chapter focuses on the strategies that the couples implemented in order to deal with the demands of the treatment. Regarding cognitive strategies, the couples talked about

active information seeking in order to gain a sense of control, and taking each step as it comes to deal with the process. With regard to affective strategies, I explore the emotional support that the couples needed during treatment. The participants described the emotional support they received from spouses, health professionals and others. I also address the spiritual support they acquired. As for behavioural strategies, I highlight the Chinese cosmological views of holistic health. The couples adapted their lifestyles by observing diet, quitting smoking and drinking, and taking rest in order to promote an optimum environment for the treatment. In the last section of this chapter, I discuss how the couples trivialized the ART medical procedure in order to reduce their anxiety and uncertainty. Finally, I discuss how Chinese health beliefs affected the couples during the treatment.

5.1 Normalising the ART process

The interview data present the feelings that couples experienced while undergoing ART treatment. The overarching theme is normalising the ART process. During the treatment process, the couples trivialised the technological procedures of the treatment and endured the pain, discomfort and inconvenience.

Tolerating the inconvenience

The majority of female participants found the daily routine of attending the ART clinic early in the morning for their injections, blood test and ultrasound, and having to return to work, very tiring and stressful. They used the words “exhausted”, “painful injections”, “troublesome”, and “fatigue” to describe the physical demands of the treatment. Some needed to deal with the added pressure and anxiety of being in time for work or had to request days off for the treatment. The interview data reveal that the participants put up with inconvenience, discomfort and pain. Some participants were less worried about the distress and more worried about getting through the process.

Becky: The main inconvenience was waking up early and I took a

taxi for the days I had injections. It was costly, of course, but I was so desperate to get pregnant that I didn't mind about this. (Becky & Tony #1)

Betty: I was tired during the treatment, as I had to wake up very early to attend the clinic for injections. It was not easy when you were working at the same time. I was also nervous at that time...initially the injections were pretty painful, but I got used to it and as long as it was going to help me to have more eggs, I really didn't mind. (Betty #2)

Lisa: I expected that the injections would be painful. They warned us during the information seminar. For me, if I decided to go ahead with the treatment, I would follow each step and try not to nag or complain about it. The only frustration that I have is waiting for each stage of the treatment to move forward... (Lisa #2)

Monica felt tired and exhausted during the treatment process. She was moody and annoyed that she needed to cope with the demands of the treatment as well as her workload. She was agitated and frustrated, particularly when the treatment appeared to be held up and she required further diagnostic evaluation.

Monica: At the beginning, I didn't feel much inconvenience from the nasal spray. When I started with the hormonal injections, I felt moody and my emotion changed, at the same time I had to deal with lots of work...Oh, my god, I had so much to deal with and it seemed that nobody could help me. I was fed up. When I had so much to deal with...I felt stressed and agitated. At that moment, the doctors said they needed to take another ultrasound scan and another blood sample...and there seemed to be something holding us up...at that point it was too much for me. (Monica #2)

Other participants minimised the physical discomforts such as abdominal fullness, pain around the injection site and fatigue. Samantha's quote reflects her response to minimising her pain. On the one hand, she used the word 'bearable' but on the other hand, she was aware of her pain and attempted to protect her painful injection site against the possibility of bumping into people. Hong Kong island is overcrowded and it is not unusual for pedestrians to bump into each other in the busy city centre.

Samantha: I suppose I have got used to it now and it is not too bad really...it is bearable. The injections were pretty painful.

Sometimes when I was sleeping, I was awakened by my injection site...perhaps I had changed my position and put pressure on the site...even when I was walking in the street, I was mindful that other pedestrians were not getting in my way in order to avoid bumping my painful injection site. (Samantha & Tim # 1)

The participants attempted to trivialise the discomfort and pain during the treatment process. One possible reason for this was because couples wanted to be good patients, thinking that they might therefore receive better care. Being a good patient, the participant does what he or she is told, follows the protocol and does not question the doctor. This cognitive thinking could enhance the couples' optimism and build up their hope during the treatment.

Trusting the doctor

The couples showed trust in the doctor during the treatment process. The sub theme *trusting the doctor* illustrates the couples' commitment to treatment and how this helped to alleviate their anxiety and uncertainty. Mike expressed his uncertainty about the side effects of the hormonal injections given to his wife, Betty. Mike's comments reflect his trust in the medical profession and his assumption that the medical practitioner would monitor the potential side effects of the treatment and initiate appropriate actions if necessary.

Mike: Um...I do worry about the effects of the injections given to my wife, as I really don't know whether or not these hormonal injections to stimulate the eggs will affect my wife's ovary function in the long run. I trust that medical science has advanced so much that the doctor will be able to monitor all these. Personally, I wouldn't like my wife to take the treatment if the doctor didn't know the side effects of it. So far, medical technology seems to be able to monitor all these and it should be fine. Otherwise, we would rather not have the treatment, if we didn't know what the possible risks to my wife's body would be. So far, my wife's body is fine and she has responded well to the treatment. I think it is o.k. to take the potential risk because I trust that the doctor will monitor her closely and he will stop the treatment if her body is not coping well. I suppose the doctor has the expert knowledge and he will tell us to stop if necessary. (Mike & Betty #1)

Similarly, Betty (Mike's wife) also put her trust in the doctor, she believed that the doctor knew what he was doing and would monitor her carefully for any possible side effects of the hormones that might lead to overstimulation.

Betty: Yes, there is uncertainty about the side effects of the hormones on my body...but I trust that the doctor is keeping a close eye on me and if my body shows any side effects, then he will stop the treatment anyway. I think that this should be ok.
(Betty & Mike #1)

With the element of trust, some participants put themselves in the hands of experts which freed them from carrying the responsibility and eased the pressure of taking potential risks. Amy's quote illustrates her total reliance on the medical practitioner in her decision-making.

Amy: We still have three frozen embryos and we would like to finish these first. I think we still have another two cycles of treatment offered by the Health Authority provision. I will wait and see what the doctor says and if he thinks that even if we start another cycle, the repeated treatment is going to be poor and he suggests that we stop...then we will stop. However, if he suggests we continue with another cycle, then we will continue. We will let the doctor decide and will take his advice from there. (Amy & Ben #2)

Trusting the doctor also implies that he/she is acting in the best interests of the participants. The participants' trust in the medical practitioner is justifiable as they assumed that the medical practitioner would act in good faith during the course of medical treatment.

Alec: When I went through the ICSI treatment, my doctor already told us that there might be a possibility that no sperm would be available or even if any sperm were retrieved and inserted into the egg, it did not guarantee that it would develop into an embryo. Now, the result showed us that there was no sperm at all. The doctor does not recommend that we go through the second cycle of treatment and suggests that we consider using donor sperm or going for adoption. I suppose he is right. (Alec #2)

The trust that participants had in the doctor sometimes meant that the patients took any potential complications that occurred during the treatment lightly. In Fiona's

case, she developed bleeding behind the peritoneum after the egg retrieval procedure. She was readmitted to hospital.

Fiona: Before the egg retrieval, I felt a bit worried because I didn't know what to expect. In fact, it was quite a simple surgical procedure and I didn't experience much pain. After I returned home, I suddenly experienced terrible severe pain and I could not lie down as this made it worse. Then we came back to the hospital and the doctor told me that it was bleeding behind the peritoneum. Apparently it was a kind of complication after the procedure. Therefore I was readmitted. At that moment, I wasn't too worried about it, as I knew I was under good care and the doctor would resolve this problem. However, I was frustrated and annoyed as I found myself still having to deal with my work issues while I was in hospital. Due to my unexpected hospital admission, I didn't have enough time to hand over my work to my staff...and they were unable to take on the responsibility and still kept asking me work related issues while I was not feeling well. (Fiona #2)

Fiona's quote illustrates her total trust in her doctor. She did not doubt his/her competency, she trusted that her doctor would deal with the complication. In contrast to Alec's trust (see above quote from Alec) in his doctor's recommendation, Fiona's trust in her doctor was not justified, as the bleeding behind the peritoneum was due to poor surgical technique in retrieving the egg. Fiona took this lightly and trusted that this complication would be dealt with professionally and she focused on the emotional demand from her work even though she was hospitalized.

The tension between trust and mistrust or trust and scepticism affects couples' perceptions in their willingness to accept treatment. The influence of significant others or relatives sometimes shifted couples' confidence in their doctor and made them shop around and seek other doctors for further treatment. As Rose commented, her trust in her doctor was not necessarily total and her confidence in her private doctor changed after she had experienced several unsuccessful attempts at intrauterine inseminations (IUI). Then she started following relatives' and friends' suggestions to consult other private physicians. Eventually, she took on a more expensive and risky treatment.

Rose: At that time, I had a lot of doubts... and there were so many

changes occurring as well. All together, I have undergone eight courses of IUI and all treatments failed. I feel relatively uneasy and think about the reasons for the failure. Then I start losing confidence in that doctor and start taking in my relatives' and close friends' advice and recommendations to consult other private gynaecologists...eventually I went to a private ART centre and I took on their advice to have a gamete intra-fallopian transfer (GIFT) and then we even had in vitro fertilization but it failed again! (Rose & Adrian #1)

During the treatment, participants relinquished their control to the health care teams. Trusting the professionals enabled participants to take on their treatment and indirectly ease their anxiety and uncertainty as the medical teams were taking responsibility. However, the uncertainty and ambiguity that occurs during the course of infertility treatment also affects the level of trust between patient and doctor (Becker & Nachtigal 1991). Rose's quote illustrates her unmet expectations and consequently her changing relationship with her doctor.

From private to public

Couples who embark on ART treatment need to accept the idea of procreation moving from being a private to a public matter. The subtheme from private to public encapsulates the feelings and emotions that couples go through and their perception of normalising procreation from the private to public domain.

The diagnostic and treatment process of ART led the couples to accept involvement of the 'third party' i.e. the doctor into their private intimacy of reproduction. Raphael-Leff (2005) comments that in ART treatment, the couple's sexual activity is interfered with by a third party. The participant couples appeared to accept the involvement of the doctor in their reproduction, once they had decided to have the treatment.

Kelvin: Well, we cannot conceive naturally and have accepted ART as a sort of treatment to help us. To be honest, I am not too mindful about this...as far as I know, we need help to conceive... (Jane & Kelvin # 1)

Kelvin's quote illustrates his focus on the goal of the treatment and avoids addressing the intrusion of their intimacy in reproduction.

Other couples were aware of the involvement of doctor in their sexual reproductive life, but they perceived it as part of the treatment process.

Jim: I understand that my sperm and my wife's egg will be fertilized in the lab and hopefully form an embryo for transfer... I am not thinking too much about where the reproduction takes place...like the normal process really. When you need this treatment, this is part of it. (Carol & Jim #1)

The involvement of the doctor signifies that the couples need help in achieving conception. In general, childbearing and pregnancy is perceived by Chinese people as private and family business (Cheung 2002) and Chinese men and women are reluctant to talk about sexual relationships in public (see Chapter 7, section 7.4). The interview data reflect how the couple focus on talking about the treatment and avoid addressing the intimacy of reproduction.

The theme of going from private to public also relates to the procedures involved in masturbation at the clinic to obtain sperm samples. For those couples who lived far from the clinic, the male participant was required to masturbate in a room for my interviewees, the public toilet near the ART centre. Many male participants commented specifically on the embarrassing nature of the space in which they found themselves. Mike and Craig reported their anxiety, embarrassment and the lack of privacy in which to perform a very private act.

Mike: Oh! Giving a sperm sample is something...yeah...a bit embarrassing really. As we live far away from the centre, I had to give the sperm sample at the public toilet near the centre. I felt so uncomfortable and embarrassed. I felt as if anyone could just knock at the door or someone who was desperate to use the toilet! I felt under pressure to perform and had to finish quick! After I finished, I worried that I might drop the sample accidentally. Then...O, my god, my wife would be extremely upset. I was thinking that this is a very private act and how an earth will I be able to do this in this space. Perhaps a private room might be helpful to do this act! (Mike # 2)

Craig: Yeah...it is a bit challenging to give sperm samples in the public toilet. As the toilet space was very limited...and I felt uneasy and embarrassed and absolutely uncomfortable. The worst of it was that I had to make sure it worked and that I was able to produce a good quality sample as well. I feel that this is a very private act and a more decent private room should be arranged for this purpose. If resources are limited, the size of the toilet should be increased and the environment improved...a bit more romantic setting may help.
(Craig # 2)

The quotes describe their anxiety and embarrassment and the possibility of unexpected intrusion when Mike and Craig are giving their sperm samples. The public toilet is described as a space that is not supposed to be used for such a private act. The space becomes permeable and at risk of being invaded by others. As Michie & Cahn (1997) describe, the public bathroom marks, for the male participants, a gendered path from the private to the public.

5.2 What if...it does not happen?

ART treatment involves a series of stages (see Appendix 1) that couples go through as part of the process. Their commitment to visit the clinic daily for hormonal injections, oocyte retrieval, semen collection, fertilization, embryo transfer and the outcome can cause anxiety and stress. Studies illustrate how it is common for infertile couples to experience sadness and anxiety (Slade et al. 1997), hopelessness and anger (Ardenti et al. 1999) when they are undergoing IVF treatment. Their emotions have been described as a roller coaster, for one moment they have high expectations of hope and the next moment they are in the depths of disappointment and despair (Imerson & McMurray, 1996, p.1018). Redshaw et al. (2007) highlight the physical and emotional effects of the treatment. The theme *what if...it does not happen?* identifies the emotional turmoil couples experienced during the process and how this affected their emotional and social wellbeing.

Emotional turmoil

One example of emotional turmoil was the anxiety experienced by participants. They were anxious because they had not been through the treatment before, so they did not know what to expect at the various stages.

Betty: I am seldom admitted to hospital for any examination or investigation. I feel anxious this time, as this is my first time to have surgery... (Betty # 2)

Mike: When my wife was having the hormonal injections, I was worried, as I didn't really know whether the hormones would affect her body systems. What the side effects of the hormones would be on her body. After all, I am the one who caused the infertility (Mike # 2)

Mike's quote reflects his feelings of guilt. Not only was he the one responsible for the infertility problem, but also he felt that he was responsible for the potential problems that ART treatment might cause for his wife. His quote highlights the possible iatrogenic effect caused by the hormonal injections into his wife's body.

Similarly Craig shared Mike's view and was anxious about his wife's response towards the treatment. His anxiety affected his sleeping pattern. Craig further commented that he was unfamiliar with the treatment and did not know what to do or how to respond to his wife's queries and need for care.

Craig: I feel sorry for my wife, as she has been going through all these hardships during the treatment. She has all those painful injections and blood taken...I am concerned if she is anaemic or not. I really don't know much about this treatment and I have lots of queries. What is it like to have egg retrieval surgery? Is it a minor or major operation? Will it affect her health afterwards? I worry about all these questions and at times I cannot fall asleep. Sometimes, I wake up and pray about this... (Craig # 2)

Craig was concerned not only about the immediate, but also the possible long term, effects of the treatment on his wife. He also felt a lack of control in not knowing much about the treatment and how he could best take on the supportive role for his

wife.

In the joint interview with Craig and Fiona, it became clear that Fiona was totally unaware of the anxiety and stress that her husband was going through.

Fiona (Craig's wife): I really didn't know that you were worried and anxious about the treatment on my body and that it was affecting your sleeping pattern. You shouldn't do that. You are silly... (Fiona & Craig #2)

Male participants were reluctant to express their emotions to their spouses. They acted as the strong one to shoulder the burden. In Chapter 6, I address the issue of gendered response in dealing with loss.

Female participants were worried about the result of the ultrasound scans (see Appendix 1). Some participants needed to know the date for this, as they needed to negotiate time off work. This uncertainty caused the female participants additional worry.

Some participants were disappointed as the scan showed that they had not responded well to the hormonal stimulation. The abundance of eggs increased the participant's optimism as this increased her chances of having more fertilized ova. Therefore, Tina was disappointed as she had only four eggs after the hormonal stimulation and in the end, she had only one fertilized egg transferred to her womb. Similarly, Monica was also disappointed, as the doctor told her that she had four eggs at the scan but only three eggs were aspirated.

Tina: I was a bit disappointed as I had only four eggs. I heard other women have more than I have. Later the doctor was able to aspirate three eggs but only one egg was fertilized. (Tina # 2)

Monica: The procedure of egg retrieval was ok. But I was disappointed with the result as the doctor told me that my response to the level of follicle stimulation was poor. From the scan, he told me I had four eggs but when he retrieved them, he could aspirate only three eggs... (Monica #2)

The majority of the participants focused on the outcome of the scan. They were concerned whether they had enough eggs or if the eggs were mature enough to be retrieved. There was only one female participant who commented on the lack of explanation from the doctor when she had the ultrasound scan. She felt that the doctor was talking about numbers that she did not understand and she had to ask in case it was not explained to her.

Susan: Some of the doctors don't say anything if you don't ask them. When I was having the ultrasound scan, I directly asked her what the size of the eggs was...she told me the size roughly needed to be 25mm. Otherwise they talked about the numbers between them and I didn't have a clue what it was about!" (Susan # 2)

Susan further suggested that her husband could have been present for the ultrasound scan, in the same way as husbands of pregnant women are welcome to attend the ultrasound scan during the antenatal visit.

Susan: It was so abstract when I told my husband about the size of the oocytes because we had never come across this before. To men, they don't know what you are talking about the size of oocytes really. It would be better if my husband could attend the scan so that he could provide support for me. (Susan & Brian # 2)

At the time of data collection, the ART centre policy was to exclude spouses during the egg retrieval process. The spouse was encouraged to meet his wife in the recovery area. The reason was to reduce the resources needed to support the husband during the process. Susan brought up the issue of inclusion of her spouse during egg retrieval procedure.

The next stage of the treatment was when the participants were admitted to hospital for egg retrieval surgery. This was an important step for them as it meant that they had successfully produced enough egg follicles ready to be retrieved. Most of the female participants described their time in hospital prior to egg retrieval surgery as anxious, tense and emotionally charged. Several female participants commented on the mutual support that they received from each other when they were going through the treatment. Some felt that the presence of others provided mutual support and this

helped to ease their anxiety and worry.

Fiona: We were in the same cubicle after the egg retrieval and we chatted and shared our own stories...and I realized that we are not alone as other people also experience these problems too. There were other women who have done it several times. In fact...this made me realise that the chance of pregnancy is not high and psychologically this is preparing me for the fact that I may be the same... (Fiona # 2)

Fiona benefited from sharing her experiences with others and also was reassured that there were other women in the same situation as her (see also Section 5.3 Talking and sharing experiences with others: setting boundaries). However, she was surprised that there were other women who had been through several treatment cycles without success. This encounter increased Fiona's awareness of the fact that the chance of successful pregnancy from ART treatment was low (see Chapter 6, p.156 and Chapter 7, section 7.1) and helped to prepare her for the possibility that she might share similar disappointment in the future.

Other participants had the additional worry of possible postoperative complications.

Kelvin: I have some worries about my wife and me...because on the same day, I would be under general anaesthetic when the doctor aspirated my sperm and my wife would also have the egg retrieval surgery as well. You know...it is an operation and somehow, I am not sure if there would be any post-operative complications (Kelvin & Jane # 2)

While the participants were waiting for their egg retrievals, Susan and Brian made the point that it was inappropriate to place patients who were waiting for egg retrieval and those who were waiting for egg transfer in the same ward. She felt greater stress and anxiety when she was listening to other patients talking.

Susan: I felt that it was not a good idea to put the two groups of patients together...I mean those who have had egg retrievals and egg transfers...When I was in the ward, the other women were talking and sharing their experience of egg retrievals. Some of them exaggerated their stories. After listening to their stories, I felt even worse...uncomfortable and more worried...

Brian: The more they talked, the more anxiety and fear we

experienced. (Susan & Brian # 2)

Susan went on to say that she felt uneasy sharing her experiences with someone she was not familiar with.

Susan: During that day, I had a lot to go through...sometimes I felt, you don't know those people and it is not easy to share experiences. And each person has their own difficulties and we are not professionals and we can misinterpret the story and it made me feel more scared. (Susan # 2)

After the embryo transfer, some couples felt increased optimism towards the outcome. The majority of the participants experienced a sense of optimism during the treatment process. This theme permeated the data.

Kelvin: My initial worry was about my sperm production. Once I managed to produce the sperm and the fertility nurse told us that we could go back for the embryo transfer, I was optimistic that this would be successful... (Kelvin # 2)

The couples were prepared to 'grasp at straws' to find encouragement. They were uncertain and they attempted to simplify the complexity. They were over confident as the presence of sperm and fertilized eggs implied successful conception. This oversimplification could lead to disappointment if the result was unsuccessful. In Chapter 6, I address in detail the reactions the couples experienced when their treatment failed.

Relational demands

The available literature shows that ART treatment can have both positive and negative effects on spousal relationships (Webb & Daniluk 1999; Lee et al. 2001; Peterson et al. 2003; Repokari et al. 2007). Here the theme '*relational demands*' highlights the interpersonal relationships of the participants with their spouses and their family members during the treatment process. The spousal relationships reflect the relational dynamics during the treatment process. The following quotes illustrate the dynamics of interpersonal relationships that the couples engaged in between

themselves and with others during the treatment.

The uncertainty and demands of the treatment caused spousal strains or distress between partners. The different emotional responses to the treatment can have an effect on the marital relationship since the individuals within the couple may react differently. The male participants might think that their spouses have already been through a lot during the process, they might prefer to avoid further discussion about the related issues, whereas their spouses might perceive this as a lack of understanding and caring.

Male participants with impaired sperm motility go through intracytoplasmic sperm injection (ICSI) during which a single sperm cell is injected directly into an egg. They expressed their anticipation anxiety about the coming surgery. They were anxious about the outcome of the operation and whether there were enough sperm for fertilization. They felt that they might disappoint their spouses who had been through all the trouble of having injections and the egg retrieval process. Equally, their spouses also shared similar stress as they felt they had been through a lot and if the operation was unsuccessful and there were no sperm available, the treatment process would come to a halt.

Kelvin: Actually, I feel very anxious as well, as I have a blocked vas deferens and my sperm are not very mobile. I worry that the sperm are not strong enough, then there will be no cell division so then the treatment process would have to stop immediately as there would be no fertilized ovum. All the effort that my wife has been through would be useless... (Kelvin # 2)

Jane: Oh! I am very worried that in some cases...even after the operation, there might be no sperm to be aspirated. Then I thought if that is the case...Oh! My god, all our efforts will go down to the drain...and there will not be even one single chance to develop a fertilized ovum...that would be the end. This is what I really worry about. (Jane # 2)

Another male participant had difficulties obtaining sperm samples by masturbation. He felt stress and tension that he might not be able to perform at a specific time, in a specific setting. Again, his feeling of letting his wife down was real and he felt that

he might deprive his wife of the chance to conceive a baby.

Tony: Yeah...Oh! Definitely I feel the pressure...as there are times I cannot perform under pressure. For this coming ART treatment, I do worry that I will not be able to do it.

Becky: Oh...yes...we have experienced that before...we could not produce the sperm for collection under the time constraint. We worry that this may happen again in this treatment. If we do not have the sample, then the treatment will be stopped and all our efforts wasted. In the past, we wasted a lot of money on private consultations as well...these are the things that we worry about for this treatment. (Becky & Tony # 2)

Giving a sperm sample placed enormous pressure on the male participants. In the theme 'from public to private', I have addressed the male perception of giving a sperm sample in an unfamiliar, un-erotic environment. The above quotes address the male ego and virility as they worried about their failure to perform. Tony's spouse, Becky, also shared this uncertainty, as she well knew that the consequence of having no sperm implied that the process of fertilization would never happen.

The uncertainty of ART treatment causes additional stress and strain on the couples' relationships at various stages. One partner may cope with the uncertainty and stress by simply avoiding talking about the issue in the hope of reducing the feelings of anxiety and uncertainty. However, the other partner may perceive this as a lack of understanding and lack of concern and she may feel that she has to cope with the issue by herself. The following quotes from Monica and Ian illustrate their different reactions to deciding on the number of embryos for transfer. Monica would like her husband's advice in deciding on the number of embryos to be transferred, but Ian felt that it was Monica who had to go through the process and that she should have the autonomy to make her own decision. Monica might feel that Ian had left her to make the decision at a time when she wanted someone to make it for her. Whereas Ian thought that he should not intervene and impose his ideas. Consequently, this could create tension and misunderstanding between the couple (see also Section 5.3 Emotional support vs lack of support from spouse and Chapter 7, section 7.4)

Ian: I do know about my wife's concern...but I feel it is up to her to make her decision, as she is the one who has to go through it.

Monica: Yee...actually, this doesn't help to resolve the problem and I feel I am not satisfied. Right now, I have no advice from him and I just do what I want...sometimes I feel uncertain as well and it is difficult for me to decide...and my husband just throws the ball back to me...do as I like or don't do it if I don't like. I feel frustrated about this. (Monica & Ian # 1)

The interview data also illustrate that the perception of the level of distress was different for men and for women. The male participants commented that their spouses went through both physical and emotional demands during treatment. They felt that their spouses experienced more distress than they did, particularly in dealing with the uncertainty at each stage and at the outcome. It was interesting to note that some women felt that their spouses avoided showing their emotions in order to reduce additional stress from what they had already experienced during the treatment.

Mike: In general, my wife's health status is weak and when I see her go through all the blood tests, hormonal injections and egg retrieval and getting up earlier....I feel sorry for her and I know she has to cope with more stress and demands than I have. And I know she really hopes the treatment is successful. Sometimes, I feel she has more burdens to bear than I have. (Mike # 2)

Many men reported not talking about their own emotional reactions because they felt it would add to their partner's burden. Bob felt that his wife was under stress as she was the cause of the problem.

Bob: I know my wife feels a lot of stress as she has high expectation of this treatment. I try not to talk about how I feel, as I do not want to add additional stress for her. Instead, I am thinking about what I could do in order to assist her or to facilitate the treatment process. I hope to help ease her anxiety and stress. As for myself, I am not the one with the infertility problem. I don't feel there is a particular thing for me to deal with. I mainly focus on what I can do to help my wife. (Bob # 2)

In contemporary Hong Kong society, the social influence from the parents-in-law relationship has changed, as families no longer share their house together. The quotes from the female participants illustrate a mixed picture of the social pressure from

their in-laws. Susan expressed her anxiety and stress in relation to her in-laws during ART treatment. She expressed her worry that she was being blamed for the infertility problems and was reluctant to let her in-laws know about the treatment. Carol was concerned that her mother-in-law would blame her if she found out that Carol ate the wrong type of food which could affect the prospect of pregnancy (see Section 5.3 on Dietary observance).

Susan: For now, we haven't told my mother in-law that we are going through this treatment. I believe she will blame me for causing this problem...Now, we know that my eggs are the cause of the problem...and I dread letting her know about this...(Susan #2)

Carol: My mother in-law is very sensitive to what I eat, she will blame me if she knows that I am eating banana...cos she might think that it will cause miscarriage...(Carol # 2)

For other participants, like Fiona, her relationship with her in-laws was more friendly and instead, she was concerned that she would let her in-laws down if the treatment was unsuccessful. Lisa's quote illustrates that she perceived that ART treatment was personal and private and rejected any involvement from her in-law.

Fiona: My relationship with my in-laws is very good. They care about us and now they know that we are having this treatment, I feel that they will worry about us if it is unsuccessful as they know it means a lot to us...(Fiona # 2)

Lisa: I feel that the ART treatment is our own business. I am not too mindful of what she thinks. I don't really like my mother in-law interfering. (Lisa # 2)

Literature has suggested that the impact of the couple's relationship with their in-laws is an important factor in relation to the spousal relationship (Lee & Sun 2000). The quotes from the participants show a mixed picture however, and it depends on the personal relationship of the individual couple with their in-laws. The in-laws play a part, but it is not as crucial as before.

5.3 Adjustment in dealing with the process

I use the term 'adjustment' to describe the changes couples make when they engage in ART treatment. The theme 'adjustment in dealing with the process' captures the changes that occurred within the couples, their family and their work. This theme was subcategorized into cognitive, affective and behavioural strategies.

Cognitive strategies

Knowledge control

In Chapter 4, section 4.2, I described how the experience of infertility imposed a feeling of lack of control on the couples around their reproductive functions. When the couple decided to pursue treatment, they used various coping strategies to regain some sense of control during the ART process. One way was to gain informational control so that they knew what was going on during the treatment and this helped them to cope with the process. Many couples found that learning and reading as much as they could about their infertility treatment helped them to regain some control. They gained their knowledge by asking health care professionals, seeking information via the internet, attending information seminars conducted by the ART centre, reading related books and magazines and asking friends or relatives who had received the treatment.

Kelvin: Once we started the treatment, I found myself reading more about it from the internet, magazines, books or newspapers column... (Kelvin #2)

Brian: At the beginning of the treatment, we attended the information seminar organised by the centre. This was a very brief introduction to the treatment. I felt I needed to know more and I started reading books and searching the internet to find out more information. When my wife's first cycle failed, I had lots of doubts and questions about the poor quality of eggs. I really didn't know what this meant. What would the alternative option for the next cycle be and so on? I also searched on the internet to check if there were other advanced technologies...I needed to know more about

this treatment so that I could be in control and decide what best to do for us. (Brian #2)

The participants were proactive in searching for information which would help them to know what was going to happen during the treatment. The availability of internet sources has changed the way information is conveyed. Not only could participants use the internet to establish information, it also served as a place for support and networking. However, the information obtained from the World Wide Web can be overwhelming, isolating and of poor quality (Epstein et al. 2002; Okamura et al. 2002). Internet sources might provide irrelevant, unrealistic information and consequently could cause the participants anxiety and to have unrealistic expectations.

While the treatment was in progress, the participants complained about the inadequate information given in the introductory seminar conducted by the centre. Their quotes reflect how the information given by the staff was perceived as 'generic' and 'unspecific'. They felt that they were not fully informed and were unclear about the process.

Craig: As this is our first time for ART treatment, there are lots of things we really don't know. The information seminar provided brief descriptions about the treatment and we also watched the videotape as well. Although at the end of the session, there was a question and answer section, at that time, we had not started the treatment and we did not know what to ask. It was not until we were in the treatment that there were things I felt I didn't know. For example, is the egg retrieval a major or minor operation? Would this surgical procedure affect my wife's reproductive organs? After the embryo transfer, how long would we need to wait for the result? Would this treatment affect my wife's health and if so, how long would she need to recover from the treatment? These are the questions I wanted to know. Of course, I would like the doctors or nurses to answer all these questions. But they are busy with their work too. When we know what is going on, it will ease my anxiety and help us to cope with the treatment (Craig #2)

The information seminar was conducted at the time the participants signed their consent forms, potentially several months before they started the treatment. As Craig's quote indicates, he did not know what to ask at that time. The seminar gave

an introduction about the treatment but no details about what was going to happen and what the participants could expect. The participants spoke about their need to know through active information seeking. Knowledge is one factor that decreases uncertainty and reduces anxiety. Their quotes also indicate how the health care professionals gave superficial information. This lack of detailed information might be due to the complexities of the treatment and because each case is different. The participants wanted to gain some sense of control by asking for and seeking information in order to make decisions about the continuity or discontinuity of their treatment and the anticipated consequences of alternative options.

Taking each step as it comes

The ART treatment process involves various stages and, as described in section 5.2, all the emotional turmoil that the couples experience. This complexity causes ambivalent feelings and anxiety. Some couples apparently dealt with the uncertainty by not worrying about the process. As Lisa's quote illustrates, she just wanted to complete the treatment and take things day by day. This helped her to release anxiety and stay focused on completing the treatment cycle.

Lisa: Well...it is no good worrying. Just go through the whole process and that is it. There is no point moaning or complaining about the hardship of the treatment. They (doctor and nurse) have already told us what was going to be involved in this treatment during the information seminar so I knew what to expect. Anyway, if we just take each stage at it comes, we will finish the treatment. (Lisa & Mark #1)

Betty: I try not to worry about it. I just follow the doctor's instructions and get it done...just take each step as it comes. (Betty #2)

When the treatment failed, the couples also used cognitive strategies to deal with their loss. The themes 'resigned acceptance' and 'letting go' are discussed in Chapter 6, section 6.4.

Affective strategies

Contrary to a common belief that Chinese people are reserved and do not tend to express their emotions to strangers, the interview data showed that participants were open to sharing thoughts and feelings particular to people who are undergoing ART treatment. The participants needed to express their concerns, they needed to feel at ease during the treatment and they needed support, acceptance and respect. Three sub themes were identified and these included emotional support from the spouse, emotional support from the health care professionals and emotional support from others. The interview quotes reflect the participants' perceptions of emotionally supportive behaviour which has been considered effective in helping couples.

Emotional support vs. lack of support from spouse

The findings demonstrate that couples mainly sought emotional support from their spouses and their close family members. The participants described communicating with and gaining emotional support from their spouses as the most important form of support.

Rose: This time, I feel very different with this experience as Peter is always with me at my side ...now he comes with me when I have my injections, ultrasound scans and egg retrieval and egg transfer. My whole experience is so different from the last one. He is there for me. (Rose & Peter #1)

Amy: I am able to express my anxiety to my husband and this really helps me a lot to go through the process. (Amy #1)

Being there for the spouse meant that the couples attended clinic visits and embryo retrieval or embryo transfer together, although husbands were not physically allowed to attend the procedure. Rose's quote indicates that her spouse being present helped to ease her anxiety and worries, as she felt that they were dealing with the treatment together, she was not on her own. Amy's quote reflects how her openness and ability to express her anxiety to her spouse provided her with emotional support.

The support that the couples talk about is emotional. The couples described supportive behaviour in terms of their spouse's willingness to take on the treatment together. The spouse's acceptance helped the other partner to accept his or her own inadequacy and disappointment of not being able to conceive. Infertile men and women describe the greatest support that their spouses can give them is to accept them and be willing to go through the ART treatment with them. Their spouses' acceptance directly helped them to accept their own inadequacy, disappointment and sadness when the treatment failed.

Kelvin: Initially, my wife was not particularly keen to have children. She preferred to be child free for a while. Over a period of time, I tried to persuade her and eventually she changed her mind and decided to go ahead with the ART treatment. She has gone through a lot during this treatment. Her commitment and willingness to go through all these inconveniences have meant a lot to me and this is the most valuable support that she can give to me.
(Kelvin # 2)

Similarly, Alec echoed this view that the greatest support he received from his wife was that she did not blame him, even though the ART treatment could not be achieved as there was no sperm for fertilization.

Alec: In this ART treatment cycle, we didn't even manage to complete the egg transfer process...because I was unable to produce any sperm. The doctor did not manage to get some sperm for intracytoplasmic sperm injection (ICSI)...Even with such disappointment, my wife does not blame me for not being able to give any sperm...to me, that was the greatest support she gave me.
(Alec # 2)

The infertile women shared similar views to the infertile men. They expressed how the greatest support they could receive from their spouses was to be accepted by them and not be blamed for the infertility problem, not be judged for their inability to conceive a child. The female participants wanted affirmation and reassurance from their spouses that they were important in their lives. Fiona, Rose and Betty illustrate how they perceived affirmation, acceptance and love from their spouses as being the most important spousal support to them.

Fiona: I know that my husband loves children...of course; he would love to have our own child. He never puts pressure on me. Instead, he always supports me...always puts me before other people. Even though this cycle failed, he tells me that I am the most important person in his life...and he loves me because of me not because of being able to have a child for him. (Fiona # 2)

Betty: When the treatment failed, my husband reassured me and supported me. He said that we had tried our very best and we could have another chance in the next cycle. He comforted me and reassured me that he loves me no matter what the ART outcome is... (Betty # 2)

The family is also an important social support for the participants. It was interesting to find that the female participants tended to share news about their infertility treatment with their mothers and sisters but the male participants were more likely to share with the partners (see Chapter 6, section 6.4, Selective disclosure).

The male participants also highlighted their lesser involvement with the treatment. They commented on how their involvement was minor and non-invasive compared to the extent and level of invasiveness involved for their spouse.

Bob: She has a lot to go through...my part is pretty simple...just giving the sperm specimen. It is not a big deal to me. I don't think I need any support. (Bob #2)

Ian: Do I need support? Not really.... I suppose my wife needs support, as she has to go through a lot. (Ian #2)

The men in this study coped with the treatment process by expressing their lesser involvement and believed that they did not need as much support as their partners. This is consistent with male role socialization that they are less emotionally involved (Jordan & Revenson 1999; Throsby & Gill 2004). For male participants who are diagnosed with male infertility, their source of support is mainly from their spouse. As Kelvin states "My main source of support is from my wife. We talk and share our feelings." (Kelvin #2)

Emotional support from the health care professionals

Some participants described “good” or “caring, sensitive, listening” from the nurses, doctors and other hospital staff. Further positive statements are illustrated in the following quotes. These positive interactions provided emotional support that was welcomed by the participants.

Craig: The infertility nurses were friendly and sometimes they talked to us and made us feel at ease at the clinic. Overall, they were good in their communications.” (Craig # 2)

Lisa: This is my first experience with this treatment. I ask a lot of questions. The doctors and nurses are very patient and willing to answer my queries. I am satisfied with their care. (Lisa # 2)

Tracy: The nurses are nice and kind. Sometimes when I had received a lot of injections and my bump appeared sore and red, she would say...”oh! It looks sore to me, perhaps you can use an ice cube to relieve the redness and pain around the injection site...” These comments made me feel that they cared about me. (Tracy # 2)

On the other hand, a few participants expressed negative comments about the doctors and nurses, such as “less sensitive”, “being busy”, “non verbal cues for not answering your questions”. These negative interactions were not conducive to supporting the infertile couples while they were having treatment. As Carol comments, the superficial interaction with the doctors made her feel that they were too busy.

Carol: There are a few doctors and nurses who do not answer your questions. Even if they give you an answer...you feel that it is superficial and not in depth. Sometimes, their non-verbal cues like being busy writing the case notes, lack of eye to eye contact...just made me feel that they were too busy and had to move on to the next patient...(Carol # 2)

Fiona: When I was having my injection in the consultation room, sometimes I wanted to ask questions. But very often, I felt that the nurse was busy giving you the injections and the doctor was busy reading and writing your case notes. They gave you the impression

that they were too busy and should not be disturbed. And there were lots of other patients waiting to be called. Then I felt that it was not a good time to ask questions and I didn't want to bother them. (Fiona & Craig # 1)

Fiona shared similar views to Carol that the health professionals were too busy and made her feel hesitant about asking questions. Carol went further to comment that the professionals engaged themselves in their interaction yet ignored her presence during the surgical egg retrieval procedure.

Carol: During the egg retrieval procedure, the staff were chatting among themselves and I felt excluded. I feel that if they are with the patient, they should focus their attention and conversation on the patient rather than leaving us to just listen to all their social conversation. (Carol & Jim # 2)

Some participants did not expect emotional support from the nurses and doctors. They perceived that the healthcare professionals were too busy to spend time dealing with any psychological problems, as they were occupied with task-related work as well as with other patients. Participants did not want to burden the staff. Some felt that their emotional concerns were private, and therefore family members - particularly their spouses - were their sources of emotional support.

Fiona: The doctors and nurses are very busy in the clinic and there are so many patients to be seen. In this treatment, I think I could handle my emotions with my spouse and I don't think I need any emotional support from the nurses. (Fiona #2)

Betty: I think I am fine...I can talk to my husband and my sister. Perhaps for those women who do not have any support from family or spouses, then they might benefit from help from the healthcare professionals. (Betty #2)

The quotes reflect the perceived emotional support or lack of support from nurses and doctors. The emotional support was received in the form of enquiring about the treatment experiences, being sensitive to the couple's needs. The opposite of non-supportive acts were reflected by lack of communication, lack of interaction. These findings support Allan's (2009) work that the patient did not want emotional intimacy but valued the practical skills and interactions from the healthcare

professionals. Couples mainly depend on the spouse and close family members for emotional support.

Talking and sharing experiences with others: setting boundaries

The emotional support from non-family members was expressed as being able to talk to and share experiences with fellow patients. This helped some participants ease their anxiety. During clinic visits, they were able to communicate about their infertility problems as well as share what was on going with the ART process. They recognized that they were not alone, that there were other couples who shared similar problems.

Ben: I didn't realize that there were so many couples having infertility problems. By coming to this ART centre, it opened my eyes to the fact that there are lots of couples with this problem...it is a common problem and we are not alone (Ben & Fiona #1)

When participants talked about their problems to 'outsiders', they chose whom they talked to and decided how much they wanted to share. During the treatment process, the couples were more receptive and willing to talk to other couples who were also having treatment. Some women were able to articulate their feelings and uncertainty towards the treatment with their close families, particularly to their sister, for example, Tina, who identified her sister as the main person that she could confide in and share her experiences. Support from siblings indicated the participants' close family ties.

Tina: My sister came and visited me after the embryo transfer. I can share my feelings with her at any time. She would help me with my shopping and stay with me. During the waiting period, we chatted and I shared my uncertainty and anxiety about the treatment. She always supported and reassured me that things would be ok. (Tina # 2)

Others were able to share their feelings with close friends and gain support outside their spousal relationship. However, some participants tended not to share their feelings with their parents because they were afraid that their parents would not fully

understand about ART treatment and would worry about them (see also p. 171-172). The following quote illustrates how some women found it useful to allay their feelings and concerns with someone they felt comfortable with. In Susan's case, she was able to share her disappointment and sadness with her best friend when her result was unsuccessful.

Susan: After we knew our result, I cried badly and my husband knew that whatever he said right now, I would still be upset and I wanted to talk to my best friend. She let me talk and express my feelings. She also gave me sensible advice like asking the doctor the reasons for the poor quality of my eggs and perhaps sharing the issue with my mother in law...She is the one I can relate my feelings to and gain support from. (Susan # 2)

The findings indicate that most female participants were able to talk to and share their experience with fellow patients. However, nearly all male participants confined themselves to sharing their feelings with their wives. Inevitably, this added additional strain on the couples, as they had to handle their stress and anxiety between them without additional support. Susan comments that it is even harder for men to express their feelings. In Chapter 6, section 6.2, I address husband and wives' responses to unsuccessful outcomes.

Spiritual support

Another aspect of relying on feelings of support through relationship was evident in spiritual support. Some participants expressed that their religious beliefs had strengthened during the course of ART treatment. Praying and faith in God were described as having given a sense of optimism, hope, encouragement and comfort to meet the challenge and stressors during the treatment, as well as helped the participants to accept a failed outcome. As Fiona comments, her Christian belief has strengthened since the beginning of her treatment. She feels that there is a reason for why things happened. She expressed her gratitude for her situation. And Craig (her husband) found consolation through prayers during the times when he was anxious and worried about his wife's response to the treatment.

Fiona: I feel that things happen for a reason...I must admit that since I started the ART treatment, my religious faith has increased and I have learned to pray for the Lord's mercy...I feel that the Lord has given me a supportive environment where my husband, my family and even my boss have supported me. Although this cycle failed, I feel I have gained more than lost anything. (Fiona # 2)

Craig: As this is our first ART treatment, we know nothing about it. Very often, I am worried about my wife's health and wonder if she is coping with the physical demands as well as all the emotions associated with this treatment. It is hard to watch her going through all these demands...I usually kneel down and pray in the evening. Praying helps me to regain my internal peace and harmony (Craig # 2)

The love and spiritual strength gained through personal religious practice, faith, prayer and belief provided spiritual support to help the participants cope with the uncertainty and disappointment of the treatment. In the next chapter, I address how spiritual support enhances the couples' internal strength and acceptance when dealing with an unsuccessful outcome.

Behavioural strategies

The interview data illustrate how the couples adjusted their behaviour to cope with the treatment process and their wish to achieve a positive outcome. This section describes their behavioural adjustment in the area of diet, smoking and drinking and their work commitment.

Traditional Chinese herbal medicine (TCM)

The participants revisited the use of traditional Chinese herbal medicine to improve their bodily functions before they engaged in ART treatment. Jim, Kelvin, Mark and Sandy took herbal medicine. They believed that it would improve their sperm quality and mobility.

Jim: Um... I have difficulty in producing enough sperm and the

sperm motility is not great. Therefore, I have taken traditional Chinese herbal medicine to improve the quality and mobility. I believe that it will work. The taste was very bitter and terrible...but I can tolerate it. I have even developed pimples on my back (I usually do not have pimples), I can tolerate it as I want to do everything to improve the outcome of the treatment. (Jim # 2)

Mark: When the doctor informed me that I am azoospermia...I took TCM as I believed this would help my sperm. All along I have been taking the herbal medicine. It is hard to drink...the taste is horrible. It isn't too bad just on one occasion but I drink it daily and it is terrible. (Mark # 2)

Jim and Mark commented on the bitter taste of the herbal medicine. Both of them expressed their willingness to tolerate the horrible taste in order to provide good quality sperm samples. By doing so, they were taking steps to rectify their fertility problems and to be in control of the treatment process.

Similarly, Tina, Carl and Fiona who had period problems, have also taken TCM, to rectify their periods. Tina believed that it would help her to improve her kidney *yin* function. She took the herbal medicine to improve the quality of her eggs and her general health status.

Tina: I have taken TCM in order to improve my kidney function, as the Chinese medicine practitioner has told me that I have a kidney deficiency. Therefore, I have taken a lot of herbal medicine so that my ovaries are nourished sufficiently to produce healthy eggs. I believe in the natural components of herbs to improve my overall health status. (Tina and Sandy # 1)

During the interviews, the participants mentioned their use of herbal medicine to improve sperm and egg quality and general health status. It is noted that the participants were also aware of the difference between this and Western medicine. These participants took TCM before the Western ART treatment and after the treatment to improve their general health status. They talked about it from the point of view of their belief that TCM helps to balance the *yin* and *yang* of the body system. By improving the *yin* and *yang*, they believe that herbal medicine can rectify some of the problems and improve their general body status.

Beliefs about diet to rectify general health status were also reflected in the participants' quotes. They were aware of the effects of hormones on their bodily functions and they used diet to rectify the effects of hormonal drugs on their bodies. As Monica commented: "I cook healthy traditional soups as I pay more focus and attention to the nutritional status of my body..." (Monica & Ian #2). Participants believed that diet plays an important part in maintaining their health, particularly the food that balances *yin* and *yang*.

Dietary observance

After the embryo transfer, all the female participants were mindful about their diet as they thought about the possibility of the prospect of pregnancy. The interview data shows that they avoided foods that were 'cold' in nature (see Glossary) or not conducive to pregnancy. As Tina's quote reflects, she became more mindful about the food that she took after embryo transfer and tried to avoid foods that were cold in nature.

Tina: After the embryo transfer, my mum came up to cook nutritious soups for me and she also advised me not to eat foods that are cold in nature like watermelon, banana or food that is chilled. Although the doctors and nurses at the ART centre informed us that it is not necessary to change our diet...just to take our normal usual diet. But I suppose I want to do my best for my body so that it provides the optimum environment for the embryo to grow inside my tummy...perhaps this may increase the chance of success. (Tina # 2)

Becky: After the embryo transfer, I was very mindful about what I ate...taking food that was healthy for pregnancy and avoid stimulating spicy food. Although the doctor reminded us not to assume that we were pregnant and to live a normal life, it is hard not to. I have an internal struggle knowing that I may not be pregnant at all. But what if I was...then I should be more careful. I was ambivalent about my feelings. My husband also helped me with shopping and heavy lifting and reminded me about healthy eating. Before the treatment, he did not behave in this way. (Becky #2)

Tina paid attention to her diet and avoided food that was perceived as not good for pregnancy. Carol, Becky and Fiona also shared her views. The women believed that it is their body and they should be taking responsibility to nurture and protect the baby even though they were not certain whether the baby would develop further or not. In addition, their spouses echoed their beliefs by offering practical help.

Lifestyle adjustment

Lifestyle adjustment also involved stopping smoking and drinking. The participants focused their awareness on how smoking and drinking can affect pregnancy and the unborn child.

Ben: I was a smoker before. As my wife is having the ART treatment, I decided to quit smoking as I know the effects of second-hand smoke. I gradually stopped and I am not smoking even though my colleagues offer me cigarettes...I just quit and that's it. (Ben # 2)

Lisa: Oh! I love social drinks. I usually go out to have drinks with my friends. When I decided to have the ART treatment, I decided to reduce the amount of alcohol that I had before... Well...I suppose I know something about the effects of alcohol on the fetus.

Annie: Is it hard for you to give up what you usually do or enjoy?

Lisa: Well...I suppose if I want to achieve my goal. I need to give up something. If I can change my lifestyle and facilitate the treatment process, why not? (Lisa # 2)

Ben's quote illustrates how the impact of his wife having ART treatment encouraged him to stop smoking as he realised the effects of passive smoking. Lisa was a social drinker before, her commitment to ART treatment meant that she gave up her drinking as if it were a penalty that she was paying.

The participants paid more attention to their physical wellbeing by taking extra rest and reducing exhaustion.

Jane: During the treatment, I have taken extra rest as I needed to wake up so early to attend the clinic. After the embryo transfer, I did not do any sport at all. (Jane #2)

Fiona: We were all informed by the doctor and nurses that we should lead normal daily activity after the embryo transfer. But I still intentionally walk slower and am more mindful to take extra rest and not eat food that is thought not to be beneficial for pregnancy. It is a strange feeling...you just want to do things to protect and nurture the embryo and hoping the embryo develops...
(Fiona #2)

Fiona's quote reflects her sense of responsibility in protecting the embryo. She reacts as if she was pregnant and intends to keep her body healthy for the prospect of conception.

Some of the women expressed their willingness to delay or give up their career plans in favour of going through ART treatment. Jim commented that his wife, Carol, put all her energy and attention into her treatment and everything else into the background.

Jim: Right now Carol is not working and she is concentrating on this treatment. I believe that this treatment takes precedence over everything. (Carol & Jim # 1)

Similarly, Alice was reluctant to change her job as she was uncertain whether or not she might get pregnant during the ART treatment.

Alice: I am intentionally not changing my job even though I know the other job has a better prospect than my current one. I am staying on with this job as I am not sure when I may become pregnant as I am having ART treatment now...I have expectation too as I have compromised my career goal for this treatment!
(Alice #2)

Alice's quote shows how she projected the possibility of getting pregnant after the treatment, similar to the arrival and upbringing of a new baby when women may put their careers on hold.

Other participants talked about the change of lifestyle in terms of sacrificing their time for the treatment. Mark talked about how he sacrificed his time by spending more time at home to help his wife and less time doing his own things. And Lisa (his

wife) also expressed her sacrifice of her time in that she was not able to do her “own things” like going out at night for social drinks.

Mark: I have given a lot of my time to look after my wife since she has become pregnant...plus I have given more time to staying at home...Um...this means that I have less time to do my own things. Yeah...spending more time at home...to me....even when we were married, we seldom returned home at 6pm after work...in fact, we spent more time on our social life. Now...to me, it is a change of our life style.

Lisa: Yeah...since I decided to go for this treatment, I have not gone out socially as often as I did before. (Mark & Lisa # 2)

The participants attempted to adjust their lifestyle in work, mobility and taking extra rest so as to provide an optimum environment for the embryo. This also meant gaining some sense of control over coping with the uncertainty of the treatment. During the process, the treatment becomes the centre of the couples' lives. Before the treatment, they attempted to rectify their bodily health to optimum capacity. They adjusted to a healthy lifestyle by not smoking and drinking and taking extra rest to cope with the physical demands of the treatment. Some participants made sacrifices in terms of their career plan and their social life for the treatment.

Discussion

The overarching theme in normalising the treatment process is encapsulated by the couples' endurance in tolerating inconveniences such as timing, uncertainty and the physical and emotional demands of ART treatment. Trivializing the medical procedures enabled the couples to endure the anxiety, stress and physical and emotional demands. Trusting the doctor was also a strategy used to exercise control, by relinquishing power to the doctor over the treatment issues, the couples indirectly exercised their control by proxy. By doing so, the participants placed their fate in the hands of the doctor. In some cases, trusting the doctor is justified because if the doctor is honest, he/she will inform couples when to stop the treatment (Benjamin & Ha'elyon 2002). Sometimes, trusting the doctor is unjustified as the patient can

focus on the outcome and ignore any iatrogenic complications that may be induced by the doctor (Becker & Nachtigall 1994). Perhaps this reflects the unequal power between patient and doctor. As Becker & Nachtigall (1991) comment, in the context of ART treatment, women may equate their ability to be 'good patients' with enhancing their chances of receiving good treatment. Having a trusting relationship with the doctor indirectly helped the couples to deal with the tension, ambiguity and uncertainty imposed by the treatment. Equally, the participants could shift the blame to the doctor by claiming that, when everything had been done and it was still not possible to achieve conception, it would not be their fault. However, the ambiguity and uncertainty occurring during ART treatment also shifts the trusting relationship between patient and doctor. Very often, the unmet expectation of the patients, in this case, in having a baby, may result in changing the trusting relationship between the couples and doctors. Consequently, the couple might consult another doctor or even change their choice of treatment.

The couples used various cognitive, affective and behavioural strategies to maintain a sense of balance and adjust to the demands and uncertainty imposed by the treatment. In the domain of cognitive strategies, couples wanted to access accurate information that could enable them to make decisions and gain some element of control over what can be a de-humanising treatment process. The interview data reflected how most couples felt that the information was insufficient and non-specific and the participants needed to be proactive in asking and clarifying what was happening. The need and desire for information obviously varied among couples and health care professionals should ascertain how much information to give to individual couples at various points in time during the treatment. The findings were consistent with other studies where seeking information and support from health care professionals reduced partners' emotional turmoil and uncertainty (Stewart et al. 2000; Chan & Twinn 2005). Several participants mentioned accessing information on the internet, which also acted as an alternative to clinic information. However, the quality of information from internet sources remains variable (Pandey et al. 2003). As Thornton (2001) states, patients require good quality, evidence based information so that they can take an active role in decision-making during their treatment.

In the domain of affective strategies, couples attempted to acknowledge, explore meanings and reach an understanding of their emotions. In traditional Chinese thinking, the relationship between mind and body is considered an important factor in health and wellbeing. The interview data indicated that Chinese couples do show their emotions, although the degree of expressing emotion between spouses varied. The findings showed that the spouses comforted and supported each other as a unit to overcome the anxiety and uncertainty during the treatment process. This study also confirmed that husbands are the greatest sources of support for wives receiving infertility treatment (Tsang et al. 2000; Chang & Mu 2008). The couples did share their experience with strangers who were also undergoing the treatment. This study demonstrates similar findings in that female participants were more willing to seek social support than male participants (Knoll et al. 2007; Glover et al. 2009). Although the women were particularly willing to share their emotions, it was difficult for the men. For the men, their main source of support was from their wives. In the following chapter, I discuss the couples' emotional reactions when they are dealing with a failed outcome.

As described in Chapter 1, ART procedures are often seen as intimate, isolating, and physically and emotionally demanding (Sherwin 2000; Allan 2001; Benjamin & Ha'elyon 2002). One way of dealing with the emotion was building a relationship with the professionals. The findings indicate that the participant couples were aware of the busy-ness of the ART clinic and the limited time that the health care professionals could spend with them. They did not expect emotional sharing with the nurses and doctors, rather they appreciated that the nurses were aware of their emotions and able to show empathy to them during their treatment. The findings support those in the context of cancer care, where Chinese patients perceived that psychological needs were to be met by their close family rather than from the nurses (Liu et al. 2005). The reluctance to disclose inner feelings to nurses may reflect the cultural barriers between insiders and outsiders in Chinese society. In infertility care, the couples perceived nurses and doctors as those providing care and were located between insiders and outsiders. However, they did expect compassion and a caring attitude from the care providers. The findings concur with Allan's (2002) study which

shows that infertile women do not always want emotional involvement with the nurses. Allan (2002 p.89) describes the infertility nurses as "being there" and "hovering" i.e. by maintaining a physical presence in the clinic, and how women perceived the nurses to be 'emotionally aware' of their needs. The findings also support Brucker & McKenry's (2004) study where the couples felt it was easier to communicate with the infertility nurses than other professionals and felt the benefits of supportive care activities given by nurses.

Behaviourally, these Chinese couples engaged themselves in changing their lifestyle in terms of dietary observance, taking extra rest to provide optimal health status and the use of TCM to improve sperm quality and deal with some gynaecological problems before the start of treatment. The quotes reflect the medical pluralism among the Hong Kong Chinese people who were subjected to Western colonialism and the different strategies that the couples adopted at a particular time to achieve their needs. As discussed in Chapter 2, in the literature review on Chinese culture of reproduction, the majority of Hong Kong citizens believe that Western medicine is good at diagnosis and fast treatment in dealing with symptoms, while *zhong yi* (Chinese medicine) is more effective in treating the roots of the problem (Ha 2009). The quotes reveal how the men took Chinese herbal medicine to improve their sperm quality before treatment. They believed that TCM has a positive effect on improving the *qi* of the sperm. The female participants also reflected on their use of TCM to improve the condition of their body. The restrictions of some foods taken by the participants indicated their health beliefs on *shil liao* (dietary practices) to enhance the prospect for the treatment outcome, i.e. the prospect of potential pregnancy. Not all the participants followed such dietary observance. The results are similar to the findings of Martin (2001) who studied Hong Kong women's observance of food and activity restrictions during pregnancy. With reference to *shi liao* (dietary practices), some foods are said to balance the *yin*, while others are good for strengthening the kidney function and replenishing *qi*. The findings indicate that women choose dietary practices as a way of taking some form of control in enhancing the treatment outcome. The majority of Hong Kong Chinese grew up with some knowledge of *shi liao* (dietary practices), which was learnt from their parents, friends, colleagues and the media. It is common practice to choose foods that are nutritional and have

medical values in *shil liao*. Most of the couples would pragmatically apply the principles of *shil liao*. I argue that couples engaging in ART treatment also deployed dietary observance in the hope of protecting a potential pregnancy.

The findings of this chapter show, along with other studies, how ART treatment is emotionally and physically demanding and financially costing. The Chinese couples attempted to normalise and minimise the demands imposed by the treatment. They deployed cognitive, affective and behavioural strategies to cope with the process. Couples demanded clear and unambiguous information from the health professionals. They also expressed their emotions and their emotional needs were conveyed at different levels to their spouse, to the professionals and to others. The Chinese couples deployed Western medicine and traditional Chinese medicine and also observed traditional *shil liao* during treatment. It is over simplistic to understand the choice of food to balance *yin* and *yang* or to make assumptions that the participants deployed all cognitive, affective and behavioural strategies to cope with the treatment. In fact, they did not use each strategy in a linear manner but rather chose appropriate strategies that reflected their individual needs and choices during the process.

Chapter 6

The lived experience of loss associated with ART treatment

Introduction

Medical advancement in ART treatment has provided hope for some couples who have experienced difficulty conceiving naturally. Nevertheless there is ample evidence to demonstrate the stress and distress associated with ART treatment and its outcome (Klonoff-Cohen 2005; Redshaw et al. 2007). The chance of success of ART treatment remains low. Based on the United Kingdom national data in 2006, among women having IVF, using fresh embryos created with their own eggs, the percentage of cycles that resulted in a live birth range from 28.6% for women under 35 to 10.6% for women between 40-42, and even lower at 0.8% for women over 44 (Human Fertilisation and Embryology Authority 2010). The 'take-home baby rate' is the most accurate indicator of success in ART treatment, however, that figure may not be easy to access. The Human Fertilisation and Embryology Authority (2010) indicate that no statistical data is absolute and that there are many other factors affecting the success rate. In Hong Kong, the Council of Human Reproduction Technology (similar to the UK Human Fertilization and Embryology Authority) was established in 2001 and came into full effect in August 2007. At the present moment, the council provides pregnancy rates and on-going pregnancy rate statistics from the year 2009 onwards but there is no national data about live births following ART treatment (see Chapter 7, Section 7.1) Inevitably, the majority of couples will experience loss after, if not having done so prior to, their ART treatment. Menning (1980) compares Kubler-Ross's (1969) stages of grief of terminally ill patients with the infertility grief response. According to Menning (1980), the feelings associated with infertility are surprise, denial, anger, isolation, guilt, grief, depression and subsequently resolution. These feelings might vary in order and intensity.

ART treatment often places enormous psycho-physiological demands on couples (Boivin & Schmidt 2005; Peterson et al. 2009). The physical and emotional changes

experienced during ART treatment increases their vulnerability and uncertainty towards their infertility problems. In addition, society and culture influence how couples express their emotions about the failure of the treatment. This chapter addresses the couples' emotional reactions and the strategies that they use to deal with their loss.

The first section, *before the loss*, deals with the sense of doubt and wishful thinking. The second section, *during the loss*, captures the emotions and feelings experienced by the couples. The third section, *after the loss*, describes their immediate reactions to the treatment outcome. The fourth section describes the strategies they employ to deal with their loss. Then I discuss the findings, in particular, addressing the couples' perspectives on facing their loss.

6.1 Before the loss

Sense of doubt and wishful thinking

The majority of female participants commented that their realization of the likelihood of loss was prefaced by a period of doubt and wishful thinking before the actual loss. For some, possible signs of pregnancy such as increased urination, back pain or swollen breasts were welcomed by the participants and enhanced their hope of becoming pregnant. Monica's quote illustrates her optimism even though she realised that her chances were slim. Her swollen breasts and the delay of her period increased her and her husband's wish for the treatment to be successful.

Monica: I knew that my chance of success was slim as I had only three embryos, I did not have any expectation during the two weeks of waiting. Those women who had the egg transfer at the same time as me all had a failed result. At that time, I was still waiting and my period had not come. I felt my breasts were swollen and sore! Because of the delay, I had a sense of excitement ...would it be possible that I might be pregnant? Yeah...that was my wishful thinking. Cos I didn't want my period to come...it was an uncertain time for my husband and me as well. (Monica # 2)

Ian: Everybody was waiting for her result. At that time, her period was delayed. It caused me to have a glimpse of hope that perhaps I might become a father! (Ian # 2)

Other participants, like Carol, shared similar mixed feelings of doubt, yet hope, that they might be pregnant.

Carol: During the two weeks of waiting...I went to the loo to pass urine more often and my back was a bit sore. I was delighted as I thought that I might be showing some signs of pregnancy as pregnant woman always have urgency and frequency...At that time, I thought there was an eight out of ten chance that I was pregnant. On Day 13, I had very slight brownish discharge...I felt uneasy though sometimes people say even with brownish discharge, it might not be a period. But intuitively, I felt that something might go wrong...During that night, I was very unsettled and worried and wished that it was not a period at all... (Carol #2)

Carol presented symptoms of increased frequency of micturition and backache, which she perceived as possible signs of pregnancy. Later when she had brownish spotting, she suspected that she might have an early miscarriage. She was anxious and fearful that the treatment had failed. Carol further commented that her early increased urination and backache was due to a urinary-tract infection. Her description reflected her desperation to become pregnant and her disappointment when she did not.

Fiona expressed her wishful thinking for her period not to come. The absence of a period indicates the possibility of pregnancy. She felt anxious every time she went to the toilet.

Fiona: A week after the embryo transfer, I became more cautious when I went to the washroom. Every time I checked for any signs of spotting or bleeding. And deep down in my heart, I wished my period not to come. When I had very slight pinkish spotting...I was not sure, as I had heard some people say that you might still be pregnant with slight spotting. Every time I went to the washroom, I wished for my period not to come...(Fiona # 2)

Having a period indicated the failure of the ART treatment. The women expressed

their anxiety and uncertainty towards spotting, bleeding or menstruation. They seemed to regard early spotting as a possible sign of early pregnancy. In a normal physiological pregnancy, implantation bleeding may occur about ten days after fertilization when the fertilized egg attaches itself to the wall of the uterus and a small vaginal blood loss may be apparent (Fraser & Cooper 2003). The early spotting created ambiguity and anxiety not only for the women but also for their spouses. As Jim commented “when she told me she had a bit of bleeding...my heart sunk but I still hoped that it was just like spotting during early pregnancy. I just hoped that it was not a real period.”

Any sign of spotting and bleeding caused the couples great concern and ambiguity as this threatened their hope of the prospect of a potential pregnancy. During this stage, any heavy bleeding was unwelcome as this implied failure of the ART cycle.

6.2 During the loss

Experiencing painful periods

The women’s descriptions focused on the physical and emotional experience of their periods. Although two of the women participants commented that their period was not painful but slightly heavier than normal, several other women actually highlighted the heavy, painful bleeding and feared that they might experience a miscarriage.

Tina: The date when my period came, I was very down and upset...I cried most of the time...the worst thing was that I did not know what was happening as I had very heavy bleeding...much heavier than my normal period and I was scared as well...would everything pass out by itself...or not? I was very worried and hesitant to ask for advice. Towards the end, my husband and I decided to take a taxi and we went to the ART centre to check it out...(Tina # 2)

Tina’s description of her heavy, very painful period also accompanied her fear of miscarriage. She feared that she might have the remains of the baby. Bansen &

Stevens (1992) comment that women perceive pain and bleeding during miscarriage as life threatening. It appears that the women who experienced a painful period after ART treatment shared a similar response.

Other participants also expressed their awareness that bleeding and cramping were definite signs of a failed outcome.

Alice: I started with tummy pain and I knew that this treatment might fail. The tummy pain was very sore and really over-rode my thinking and feelings. I only felt great pain...I thought of nothing else at that time. Then my period came...(Alice #2)

Betty: I started to have very painful cramps and then my period came. But this time, it was very heavy. I wish that they had told us before what to expect if the period came (Betty# 2)

The participants' quotes illustrate that they were not prepared for the experience of a painful period after the failed ART outcome.

The wife's feelings related to the unsuccessful outcome

At the time of interview, thirteen couples were unsuccessful in their first treatment but two women had positive pregnancy tests. Those participants who were unsuccessful felt disappointed and upset with brief periods of despair. Most participants described at least a few days of sadness, accompanied by tears and the wish to be left alone. They use the word 'fail/failure' in their narratives to reflect their disappointment and the following quotes in this section illustrate their grief reactions to their loss:

Alice: When my period came, I told my husband that I was very unhappy because the treatment had failed again. I just wanted to cry and did not want to talk to anyone and I wanted to be alone...trying to reflect on what was happening. (Alice #2)

Susan: I told my husband that I did not want to respond to any phone calls. I was angry with myself...I had done so much. (Susan #2)

The participants experienced anger about and grief for the loss of a possible pregnancy. They cried and wanted to be left alone to consider their loss.

When their periods arrived, the participants felt that all their efforts in terms of commitment and suffering had been wasted. Betty expressed her disappointment and felt that there was nothing to be gained towards the end of treatment. However, she attempted to minimize her disappointment by learning to let go of her expectation and by making positive affirmations about her own efforts.

Betty: After going through all the hassle of injections and surgical procedures plus adjusting my lifestyle and diet, when my period came, I was very disappointed and hurt. I felt down and disappointed. And I suspected that the failure would be repeated for the following cycles of treatment. The following day, I felt I just needed to let it be...if it is a success, then it will be fine. If not, I need to let it go. I told myself that I had done my best and have done what I should do. Gradually, I felt better. In fact, I feel a bit better right now. (Betty # 2)

Other participants confronted their emotions and searched for the cause of their loss. When Becky experienced another unsuccessful outcome, she was devastated but resented the idea of going through all the negative emotions again.

Becky: When the outcome failed, I was very disappointed and sad. Although I have faced numerous failures and disappointments before, I could not take it easily and every time was like that...I thought I had got used to it, but I hadn't...I often asked myself "why me?" When I shared my feelings with my husband, I knew he felt the disappointment too. Well...we were upset for three or four days then we felt better. However, my husband told me if I could not handle the disappointment, I should reconsider whether to continue the treatment or not. (Becky # 2)

Becky's quote illustrates her grief reaction and attempt to search for the cause of the unsuccessful outcome. This was similar to women who experience miscarriage and attempt to find out the cause of their miscarriage (Bansen & Stevens 1992). Her spouse's comment triggers her to realise the possibility of the emotional roller coaster feelings resulting from ART treatment (Imeson & McMurray 1996).

Another participant, Carol, was devastated when her result failed. Her quote illustrates her grieving reactions to her fertility. Even though she experienced the spotting, she denied it to herself and hoped for a miracle and delayed informing her husband.

Carol: When I had a bit of spotting, I intended not to tell my husband as I knew this would disappoint him very much...I held on to my emotions until the following morning when my period came. Even then, I waited for several hours before I was willing to tell my husband. Even though I knew my period had come, I was still holding on to the false hope that a miracle might occur as I had heard that even pregnant women might have a bit of spotting during early pregnancy. I think I was too emotional and irrational at that time. I felt depressed and unhappy. Then the following day, I told my dad over the phone and acted as if I was ok. It was hard as I cried badly after the call. I knew I was upset but I did not want my family to worry about me. The major drawback I felt was...what if I go on to experience failure for the next two cycles of treatment? (Carol # 2)

Carol's quote also highlights her fear and how she hides her feelings towards her close relatives as if she is fine. Her sense of isolation leads her to avoid telling others, even her close family, about her loss. Apart from not wanting her family to worry, Carol might perhaps find difficulty in confronting her own sense of loss. In addition, she was also aware that there was a possibility of experiencing repeated unsuccessful outcomes during future cycles of treatment. She was daunted and doubted whether she would be able to cope with this.

The husband's feelings about the unsuccessful outcome

The feelings expressed by the male participants towards their partner's failed outcome varied. Some male participants were adamant that they had experienced no particular emotions to the loss. One of the participants who was ambivalent to parenthood, described his feelings towards the unsuccessful ART outcome as follows:

Annie: How are you feeling now?

Ian: When my wife had her period, of course, I felt a bit

disappointed...but only for a very short time. Rather I felt for my wife as she had gone through so much. Yes, I am disappointed as the embryo had been placed in her womb and you have expectations, don't you? When it fails, you feel that it is a pity but it is not devastating. It doesn't really matter. And I have no emotional problems. I can handle this and...have no problems at all. (Ian #2)

Ian's quote reflects his feelings of disappointment but he also denies his emotion by emphasizing that his wife has suffered more than him. He attempts to trivialise the impact of the outcome.

Another participant also made similar comments when asked about how he had responded to the loss. He denied his emotional feelings.

Eric: I think I am fine. I feel that it is harder for my wife as she was the one who went through the whole process. (Eric #2)

In general, it appears that all participants who wanted to pursue parenthood were more likely to express disappointment with a failed outcome. Sometimes they chose avoidance to minimise their feelings.

Mike: I don't want to talk about it. What is the point of talking about it over and over again? (Mike #2)

In contrast to the literature about men's lesser involvement and reactions to infertility treatment, Jim (Carol's husband) described his depressed reaction to the unsuccessful outcome.

Jim: When Carol told me she had a bit of spotting...I still had high expectations and thought that even pregnant women might have some slight bleeding. When Carol told me that her period had come, I felt very down and low...as if I had been beaten by somebody...but I could not blame Carol as I know she has tried very hard. I felt that I was not quite myself at that time. My mood and emotion swings and obviously my behaviour to Carol took a complete turn. I mean from one who was very sympathetic to one who really didn't want to care too much. At that specific time, I wanted to be away from her and our environment and going on a business trip seemed my best strategy. After a while, our emotions

settled and it was Carol who comforted me...as she knew that I was very disappointed. (Jim # 2)

Jim expressed his disappointment by avoiding talking or sharing his feelings with Carol. He described his depressed mood. He used the escape route of going on a business trip on the day that Carol found out the result, absenting himself from providing any support for Carol. There was also an element of blaming Carol, even though he knew that she had tried her best to cope with the treatment. He chose to work as an escape and to avoid dealing with his own disappointment and sorrow. Peterson et al. (2006) comment that men tend to use avoidance strategies to deal with failure. It was also a paradox, as it was Carol who was supposed to be hurt and who needed the support most. Instead, she took on the supportive role to help her husband cope (Murphy 1998).

As for Craig, he felt disappointed with the loss. However, he changed his focus from his wife emotions and attempted to rekindle his own emotion and to provide support for his wife. He took up the gender supportive role for his wife and attempted to minimise his own disappointment and emotion.

Craig: When we went back to the clinic and it was confirmed that our result was negative, we were very disappointed...but I knew that the success rate was only 20% anyway. At that time, I felt that if I expressed my own emotions, this would put additional pressure on my wife. She has gone through a lot...just like a person who has worked hard for her examination and failed. I thought it might be very hard for her to cope. With support and encouragement from me, she might be able to carry on for the next cycle of treatment. Therefore, I didn't want her to see me upset and feeling low. (Craig # 2)

The quotes from husbands about their reactions towards the unsuccessful ART outcomes varied from male stereotypical bravado to more personal emotional reactions. It was evident that they attempted to take on the caring role for their wives. However, some participants, like Jim and Mike, also exhibited emotional reactions to their loss and were unable to offer support to their spouses.

6.3 After the loss

Searching for causality and changing issues of blame

When the ART result was unsuccessful, some participants blamed themselves for the negative outcome. Some blamed their bodies for not being able to function. Alice blamed herself for the fact that the embryo was unable to implant in her uterus.

Alice: Well...for this ART treatment, we were able to produce fertilized embryos. Therefore there was nothing wrong with my husband and it is not his problem. But the fertilized embryo was not able to develop and implant into my uterus, then I felt it was my problem. Um...I was disappointed with myself, but I am not blaming myself because it is a reality...even if I blame myself, it does not help in any way and even if I blame myself, it only causes unhappiness. (Alice # 2)

Alice's quote highlights the question of responsibility for the problem. She thought that her uterus was the cause as it had failed to let the embryo develop further. The question of "who is to blame" came back to her thoughts. At the same time, she attempted to shift the blame back to the reality, which was that the result had failed and nobody was to blame.

Becky expressed her fear that she would worry whether her husband would blame her for the failure. Initially, when her husband had sperm problems, she was unhappy and blamed him for his problems. At times, she was not sure whether she would have married him if she had known this before the marriage. After the ART treatment, she realised that her husband was not the cause of the problem as they had a fertilized ovum. The embryo was unable to implant and develop in her uterus. Then she thought it was entirely her problem. After the ART treatment, she shifted the blame from her husband back to herself. With the change in who had caused the problem, she worried that this might alter her relationship with her husband, she was not sure whether her husband would blame her for the failure as she had previously blamed him. She was in emotional turmoil as she was also worried that her body was dysfunctional.

Becky: Yes...initially, I did blame my husband that his sperm were the cause of the problem. But during this treatment, his sperm was fine and we were able to have a fertilized ovum. Then I thought that the problem might come from me and that explained why the embryos were not growing inside my tummy...Then I was afraid that my husband might blame me for that...(Becky # 2)

The unsuccessful ART outcome made the participants become conscious of who was responsible, which they related to the functional sperms and eggs, embryos and uterus. The perception of having a healthy reproductive body for conception was evident in their quotes and the inability to conceive made them either blame themselves or their partners. They were also concerned about the possible altered effect on their relationship.

Jody protected her husband by not specifying who was causing the infertility, instead she responded to it as a joint problem. By using this strategy, no one was to blame.

Jody: I tended not to say who was causing the problem. Instead I always say that it is our problem and that we are doing something to deal with it. (Jody #2)

Some male participants tended to avoid highlighting the negative outcome of the treatment in order to protect their wives' feelings. Brian commented that the ART treatment had confirmed his wife's problem, but he avoided talking about the negative outcome in order to protect her feelings.

Brian: After the ART treatment, we eventually found out that it was my wife's problem. It was her parts that had failed and it would take a long time for her to heal emotionally because of this. I tended not to emphasize who had caused it, instead we focused on what could be done to rectify the situation. (Brian # 2)

Ian: My wife may think that she is the one to blame for the infertility problem...after all, she was the one who caused the problem...That's why I don't talk about it too much. If I constantly remind her that I would like to have children, then she will feel devastated and sad. (Ian # 2)

The social pressure for men to be "the strong one" leads the husbands to act as the

protector and supporter of their wives (Webb & Daniluk 1999). They also avoid expressing their grief and their emotion and they are less likely to talk about the loss, even when they hold their wives responsible for the disappointing outcome (Beutel, et al. 1996; Johnson & Puddifoot 1996).

Feelings of powerlessness

The feeling of powerlessness involves a sense of loss of control over one's body, over the ability to exercise choice and over the ability to plan for the future. Monica and Tracy came to realize that they had been suffering from a physiological dysfunction which caused their wombs to be much older than their biological age. They were shocked and angry, as their bodies had not shown any signs or signals to warn them. It was the ART diagnostic and evaluation process that had identified their problems. They effectively experienced a double loss therefore, for they lost their ability to conceive and they lost their bodily function.

Tracy: When the doctor told me that my reproductive function had degenerated and appeared to be 15 years older than my biological age, it was a shock to me...I never expected that to happen to me. I looked normal outwardly and my body was absolutely fine and I did not feel any symptoms at all! If I added fifteen years to my age now, I would be 50! Oh! God! At the age of 50, the chances of getting pregnant are very slim. This age has higher risks for pregnancy as well. (Tracy # 2)

Tracy was in shock as discovering that she had a degenerative uterus (see Glossary) was totally unexpected for her, although she had suffered gynaecological problems for a period of time before the ART treatment. Her private gynaecologist had not previously mentioned her condition to her. She was angry at losing her reproductive function. The degenerative uterus obviously implied a decreased chance of conception, which she desperately wanted. She felt powerless, as she had not caused her uterus to degenerate yet she could not do anything about it, the condition was irreversible.

For Susan too, the ART treatment revealed that her uterus had degenerated. She was very disappointed but she also felt a deep sense of relief because she had struggled to find out the cause of her infertility. In knowing the reason, she thought that there might be a possibility of searching for an appropriate treatment to tackle the problem.

Susan: I was devastated when the doctor told me that my uterus had degenerated due to the gynaecological operation I had eight years ago. I felt betrayed, as the other doctor did not warn me about this! Now, I finally know the reason for my infertility. Yes, it is upsetting to know that but at last, I know the truth. All these years, I didn't know why...now we can focus on what should be done to improve the quality of my eggs or to pursue different types of treatment.
(Susan # 2)

Some participants felt that they had done everything they could, but that they had no control over the outcome. They experienced feelings of great disappointment and powerlessness, as they could not do anything to rectify the outcome.

Tina: I was very disappointed with the result. I thought I had done absolutely everything but it still failed. At times, I wondered whether the same failure occurred after the next treatment, if I would be able to cope with it again. (Tina # 2)

Many participants experienced this sense of powerlessness. They felt that they had not done anything to cause the infertility and they had done everything that they could to enhance the ART outcome, yet the outcome had failed. They offered a fatalistic explanation for the loss in that there was nothing that they could do to change the treatment outcome.

Fear of multiple loss

This theme captures the couples' experiences after their unsuccessful outcomes. The majority of participants asked themselves the same question: "What if the next cycle of treatment fails again?" They feared that they would have to confront their feelings of loss all over again.

At the heart of this loss is the participants' struggle with their own sense of identity.

The identity constitutes part of life's developmental milestones in becoming mothers or fathers. When the couples received ART treatment, they took on an infertility identity in which they pursued treatment as the central identity and other identities were pushed to the periphery (Olshansky 1987).

Carol: My whole focus is now on this treatment cycle and I am doing absolutely everything for this treatment...usually I do not get up early, now I wake up very early in order to come to the clinic to have the injections...I am not going to stress myself out as I want to be in the best state when I am having this treatment. It is so important to me now...I am not planning to go back to work right now...(Carol & Jim #1)

When the treatment outcomes were repeatedly unsuccessful, the couples gradually reached a reconciliation which allowed their identity as infertile to diminish, taking on an insignificant position in their lives once more (see Chapter 7, section 7.3 Rose's quote, p.209-210). However, Sandelowski et al. (1990) argue that some individuals and couples only acted as if they were infertile without taking on an infertile identity. These couples managed the threat of infertility by reinterpreting its meaning and using other means to overcome it (see Chapter 7, section 7.3). This inner struggle compelled the couples to construct a balanced perspective in accepting the loss.

Anita: Perhaps things were not meant to be successful for this cycle. (Anita # 2)

Tina: Of course I am disappointed with the result...but right now, my mother has just been diagnosed with bowel cancer. Perhaps it is not the right moment for me to be pregnant. (Tina # 2)

The participants attempted to justify their loss. Having a justification helped to ease their feelings towards the loss.

On the other hand, Fiona expressed her concern for her relatives. She found it hard that her relatives were feeling the loss for her and she worried that they might not be able to cope with the repeated disappointments.

Fiona: Yeah...my own feelings...I just wonder what will it be like for the next two cycles of treatment. Will it be the same failure for the second or even the third cycle? Um...(Fiona stopped and cried...)...I am afraid that this pattern will be repeated. I mean, my in laws and my family members all want us to have our baby. But if we continue to try yet still fail, I will feel sorry for their disappointment. In fact, I feel that we could cope between ourselves...I mean it is not such a big deal for us. But it is hard for us to see them being disappointed...(Fiona # 2)

Other participants expressed fears that the unsuccessful outcome of the treatment might impose a threat to their relationship. This fear arose from the basis of their perception and its associated meaning during various interactions with their spouses.

Monica: Towards the end, I have been thinking...in an irrational way. Ok. I am not pregnant, so what? But how will my husband react? Although he says it doesn't matter whether we have children or not. But what if...later on, he changes his mind. Will he find another woman?

Ian (Monica's husband): My wife has not told me before about this concern! I have never thought about this! (Monica & Ian #2)

Monica's quote illustrates her fear about the potential threat to her marital relationship if she cannot conceive and they become a childless couple. Ian responds in a way that demonstrates their lack of communication in relation to the issue.

Carol feared that she might not be able to maintain her spousal relationship because of the pressure of carrying on the family line, when her husband was the only son in the family.

Carol: I am worried about losing my husband. ART treatment is our last chance. If I do not get pregnant, I am worried that my relationship with my husband may change. All my brothers have said that they would probably have another woman if their wives could not bear children...I have this hidden worry (Carol # 2)

6.4 Strategies for dealing with the loss

This section examines some of the strategies that the couples used to deal with their loss. The term 'strategy' emphasizes what the couples do, in the face of an unsuccessful ART outcome, to mobilise their resources and maximise the outcome (Bury 1991).

Selective disclosure

The couples made their own decisions about whether or not to tell their family members about their ART treatment. There was a mixed picture as to whether they did or not. Many participants commented that ART treatment is technology. Some participants felt that the complexity and invasiveness of the treatment might cause worry and concern for their family members. The majority of couples tended to keep a low profile until they needed a relative to help them to arrange transport after the egg retrieval or embryo transfer procedure. In Tracy's case, initially she was reluctant to tell her mother, as she knew her mother would react anxiously. Then she was in a situation where she needed someone to collect her after the egg retrieval procedure, as her husband was away on a business trip. So she had to disclose to her mother that she was having ART treatment.

Tracy: Initially I did not want my family members to know about the treatment, as I did not want them to worry about me. Due to a business commitment, my husband could not pick me up after the egg retrieval. Therefore I had to tell my mum just in case there were any complications after the procedure. After I told my mum, she cried and worried during the whole time I had my egg retrieval. Really, I feel that she is getting old and she really doesn't understand and lacks knowledge about ART treatment. Therefore, she might imagine a lot of negative things regarding the treatment. That is the reason why I thought I should not give her any additional pressure. (Tracy # 2)

Jane, Kelvin, Jody and Alex chose to avoid informing their families and friends about their treatment. They selectively informed either a brother or sister or a parent when they needed someone to pick them up from the hospital after the egg retrieval and

sperm aspiration. The couples' decisions to inform their family members about the ART treatment depended on their relationship with their family and sometimes they did not want unnecessary attention or worry from their family members.

Susan and Brian kept their ART treatment secret. Susan had always had a stressful relationship with her in-laws. Yet the outcome led them to recognize their fertility problem and made them decide to let her in-laws know that they were having treatment. It took her a lot of courage but she felt such relief and was surprised by the calm and supportive response of her mother-in-law.

Susan: It has taken us a long time to feel ready to let my in-laws know about the treatment. Right from the start, we kept it secret that we had been seeking various infertility treatments. When the ART failed and the cause was due to my egg problems, I realised that we would have to let her know. All along, my mother-in-law thought that we were not committed to having children...After the treatment, my husband and I took the opportunity to tell her...to my greatest relief, she appeared relatively calm and enquired about my health. I supposed that now she realized that we did have problems and we had been doing something to deal with the problem rather than doing nothing. To me...it was a huge relief!
(Susan # 2)

Susan demonstrated her fear about the negative response from her mother-in-law. When the couple let Brian's parents know, they felt that his mother was supportive as she finally realized that they were seeking treatment and that they were not choosing to be voluntarily childless, as she had thought.

Other participants were also reluctant to inform their family members. Their comments included "don't want them to worry about us", "this is our personal matter and it is not necessary to let them know". Couples who had a positive pregnancy test after ART treatment tended to keep the news between themselves and not disclose it publicly, even among close family. This may be due to the cultural tradition of childbearing being a private business among Chinese women (Cheung 2002).

Mark: Initially we did not want them to know about it and worry about us. We kept silent until the Chinese New Year festival, when we had to let our family know as Lisa had some slight bleeding and

was on straight bed rest and could not attend the dinner gathering.
Then all the family members knew about her pregnancy. (Mark # 2)

Mander (1995) states that the revelation of pregnancy in the United Kingdom is initially only to a woman's mother and later, she decides with whom she wants to share the news. With the positive ART outcomes, the couples kept the news to themselves until their pregnancy was stable, before informing their family.

Tim: Initially we kept the pregnancy news to ourselves as we were worried that it might not be stable. Then after three months, we were relatively at ease to tell all our family members and friends. But we did not exactly tell them about the in-vitro fertilization...
(Tim # 2)

The extent and degree of secrecy related to ART treatment depended on the willingness of the couple and their personal preferences on how much they wanted others know about it. Having ART requires the couple to confront their fertility problems and some couples may keep their treatment secret due to concern about fertility-related stigma (Slade et al. 2007). The couples were quite selective about how much they wanted to share with family members and friends. As Jane commented "I prefer not to tell anyone about our treatment as you really don't know how people will react and they may intentionally or unintentionally tell others...which is not good." Jane made her point because she felt that the information was private and was worried that it could be a potential topic for '*yilun*'. The Chinese term '*yilun*' means 'to gossip' or 'to make remarks behind one's back'. She was worried that the exposure of this information might cause her husband loss of 'face' through '*yilun*'.

Being optimistic

During the course of the interviews, I was surprised to find that the majority of couples were optimistic about their treatment. Being optimistic was a key cognitive strategy couples used to adjust to the negative outcome of the treatment. They anticipated that it was not a quick fix for their problems and that the success rate was relatively low. They anticipated that it was not easy to have a positive outcome. Their

expectation affected how they reacted to their loss. Being realistic helped them to cope with the negative outcome. In addition, the couples who had extra frozen embryos and two cycles of treatment were more optimistic, as they knew they could continue with the next treatment.

Alice: I told my husband that the treatment had failed and I was unhappy. Afterwards, I thought that because it was our first treatment it was more likely to be unsuccessful...then I was not too upset about it. Later my period came as usual and I accepted the outcome...I still have frozen embryos and we will be able to continue with the treatment. (Alice # 2)

Bob was optimistic that they still had the opportunity to try again. He was concerned about his wife's emotional state as she felt devastated when the cycle of treatment failed.

Bob: Actually...I thought even if this time fails, we still have frozen embryos for the next time. Even if next time fails, we still have another two cycles to stimulate eggs and develop fertilized ovum. Therefore, I don't mind too much that this time we were unsuccessful. Of course, it would be wonderful to be successful. I hope that my wife will be pregnant, as I know she really wants this to happen. In this treatment, I was worried about her, as I knew she was unhappy and disappointed. During that period, it was pretty hard to see her suffer...(Bob # 2)

Participants were optimistic while they still had the chance to continue treatment, as the literature highlights, the majority of couples are optimistic because having treatment provides them with a chance of success. In Chapter 7, section 7.1 I shall address perceived success and failure of ART outcomes and how the context of hope, at the beginning shifts towards the end of the treatment.

Being pessimistic

Some participants were pessimistic during the course of the treatment. They might have had a poor response to the egg stimulation and somehow felt that they did not do well. Their pessimistic view acted as a buffer when they had to deal with the failure. Sometimes, due to their low expectation, they found it reasonable to accept

the anticipated failed outcome.

Monica: Actually right from the start ... I expected the treatment to fail. When I was attending the clinic, I heard a lot of stories about how the majority of women were unsuccessful. And how even those who succeeded might lose their pregnancy. I was very worried, as I had gone through miscarriage before. I would rather it failed during the early part of the treatment than for me to be pregnant and later have a miscarriage. That's why I did not hold high expectations and when I knew this cycle had failed, it did not hurt too much! (Monica # 2)

Monica had experienced miscarriage before. Her pessimistic view helped to lessen her feelings and cope with the negative outcome. In fact, her anxiety and uncertainty towards the possibility of continuing the pregnancy caused her greater stress than coping with the failed ART outcome.

In Alec's case, the doctor had already told them that it might not be possible to complete the treatment if there were no sperm aspirated during the surgical procedure. Alec and Jody were aware of the implications of this.

Alec: The doctor had already told us that there was a possibility that I might not have any sperm even using the ICSI technique. We had prepared for the worst...now as predicted, I have no sperm and we are not completing the cycle of treatment. I was not too upset about the outcome. The doctor has told us that there was a possibility that there was no sperm to be aspirated and that the treatment might not be completed as planned. Well...We have prepared for the worst.

Jody: We knew before that if there was no sperm, the cycle would be abandoned. (Alec & Jody # 2)

Spousal support

In Chapter 5, section 5.3, I addressed the social support that couples sought when they were receiving treatment. Here, I address the kind of support they received when they experienced their loss. During the interview, when participants were asked about what support they had received after the unsuccessful outcome, the women

participants often stated that their husbands were their main support. Their description of support did not focus on the emotional but on the understanding of their feelings of disappointment.

Alice: Yes...my husband supported me when I was disappointed. Of course, you don't expect them to keep talking...as you know men do not like talking about the issue all over again and again. I know he is good to me when he knows I am upset. He comforted me by saying that we still have another chance and he knows I have gone through a lot...(Alice #2)

Alice's quote reflects her stereotyping of male behaviour in providing support. She also emphasized that it was she who had gone through all the hurdles and hardship of the treatment.

The male participants also highlighted how their reactions to offering support was by doing something. In Ian's quote, he described what he did to support his wife.

Annie: When Susan (his wife) told you that her period had come, what was your reaction?

Ian: I told her it does not really matter. Perhaps we should go to have a buffet dinner. But the restaurant that we like to go to was full. Therefore we went somewhere else. I know she was very unhappy and upset...because she wants to have children...though she says she doesn't mind. Um...when the result failed...it was the reality, wasn't it? I comforted her and told her to take it easy. I told her it doesn't matter and we can go on holiday. Initially, she was miserable...but after a week, she seemed to feel better. (Ian #2)

It appears that the male participants agreed that the women needed tangible emotional support and that it is normal for women to talk to others to express their feelings. Brian, Ian and Bob shared the view that it was acceptable to encourage their spouses to talk and share their feelings with their friends and family. The following quotes reflect their gendered viewpoint about women's ways of dealing with loss.

Brian: When the result failed, I knew that my wife was very upset and she needed to share her feelings with her close friends. Perhaps Susan felt that she was to blame for the problems due to

her eggs...I think it is easier for her to talk and get support from her friends. I really don't mind, as it is easier for women to talk among women and share their feelings. (Brian #2)

Bob: I am not a very vocal person. Sometimes, I don't know what to say to my wife...I mean you need some skills to communicate and to support other person. I am afraid this aspect of support is not my strength. Furthermore, my wife is more anxious than me. I am more optimistic than her. Very often, she might have a lot of issues and concerns whereas for me, it might not be a big deal. I know she was upset by the failure. I think her close friends may be able to help her ease her feelings. (Bob #2)

As the literature shows, the majority of men acknowledged the emotional disappointment their spouses experienced when the ART was unsuccessful (Throsby & Gill, 2004; Chang & Mu, 2006) and attempted to provide support for their partner. However, the men's reluctance to talk, silence or hesitation in expressing emotional feelings might be misunderstood by their wives as them being distant, unsupportive or lacking in involvement. Other men, like Brian, assumed that the women would seek support from their friends, which could imply that these men thought that women were to blame for the infertility problems.

Professional support

At the time of the failed outcomes, several couples did not know the reason why the fertilized embryo had failed to develop. Ian expressed: "I thought that once the egg was fertilized and the doctor has put it in the uterus, conception occurs." They were puzzled and wanted an explanation from the health professionals. Brian's quote illustrates their frustration and disappointment and their desperate need for justification and clarification regarding their unsuccessful outcome.

Susan: I am disappointed...I desperately want to know the reason...but we were only told that the results had failed. The first doctor gave a very brief explanation that did not explain the cause...

Brian: After the egg retrieval, the doctor told us that they could not do the egg transfer, as the eggs were not fertilized. I felt disappointed and asked the doctor for more information. But at that time, he did not explain thoroughly to me and we were very

disappointed as we had gone through a lot...I had lots of questions. In the follow up appointment, I asked another doctor lots of questions...how and why that happened and under what circumstances would the fertilized ovum be implanted in the uterus...This doctor explained clearly to us and said that they would hold a case conference to see if we had another chance for the next cycle of treatment. After his explanation, I felt much better and relieved. (Brian & Susan # 2)

The doctors' responses affected the couples' perception and understanding of the treatment. Couples need informational support to help them understand the situation and their prognosis for future treatment.

Several couples expressed anxiety because they did not know what was going to happen, particularly if the woman had experienced pain or bleeding. Male participants further commented on the lack of detailed information and expectation of what was likely to happen if the treatment failed.

Craig: We were given an information sheet outlining the IVF treatment procedure. There was nothing in detail about what you could do in the case of bleeding or pain. They could perhaps tell us what to expect in each stage and the things that need attention...More information would avoid us having to guess. If I don't know, I can only guess and this creates anxiety.

Similarly, Brian shared Craig's view and he highlights how the wife often expects her husband to answer her concerns and questions.

Brian: If I don't know what is going on...how on earth can I explain to my wife? Very often, I really don't have an answer and I am guessing. Sometimes, I make wrong guesses as well. If the explanation was in more detail and depth, this would alleviate our anxiety and I could possibly know how to respond to my wife as well. (Brian # 2)

The couples expressed their concern about lack of detailed information and explanation when their outcome was unsuccessful. Not only did this create anxiety but also the male participants felt that there was an additional expectation on them, as

their spouses often asked them questions to which they did not really know the answer. It might be possible that the staff were more interested in a successful, rather than a failed, outcome.

When asked if counselling was necessary after the unsuccessful outcome, participants commented that support from spouses and family was sufficient to deal with the situation. A few participants expressed the need for counselling, those who did not have enough support or those who had to stop the treatment.

Betty: During my clinic visit to have injections, sometimes I saw women come here on their own and they cried after the consultation...perhaps they had had a failed cycle. I think at that point in time, these women may need a bit of support...therefore if there was someone to chat with them...this would ease their distress. (Betty # 2)

In general, Chinese patients tend to accept medical authority (Cheung 2002; Chang & Mu 2007), however, they do expect a detailed explanation particularly if the treatment needs to be stopped or other options given. During the interviews, other participants commented that detailed explanation and professional counselling support should be offered to those who had experienced three failed cycles or who were being told to stop the treatment. Perhaps they thought that professional support would help them to let go and readjust their choice.

Fiona: When I came to the clinic, my husband always came with me. But I saw quite a number of women come here on their own. Sometimes they cried badly when they were told that the cycle had failed or that they were not being offered another treatment cycle. I think counselling may help these women as well as their spouses. (Fiona # 2)

Interestingly, most of the male participants shared similar comments. They felt that couples could deal with the outcome and did not necessarily need counselling. However, one male participant commented on the positive effect of attending a support group during treatment and how this had helped him to see other couples' ways of dealing with the treatment.

Tony: I find that attending the support group is helpful to me. First, I realise that we are not on our own. There are so many couples who share similar problems with fertility. Secondly, the support group gives me the opportunity to hear other couples' experiences. This helps me and my wife to see different perspectives. (Tony #2)

Tony highlighted the benefit of attending a support group and that this sharing gave him the opportunity to listen to others' views and reduce his sense of isolation as a result of having fertility problems.

Spiritual support

Tina found that her spiritual faith helped her to find consolation for her failed cycles. Her faith helped her to justify and accept the unsuccessful outcome, as she felt that it might not have been the right moment for her to conceive. She believes that God has his plan for her and in his time, her wish will be granted.

Participants have often been through other different treatments and ART itself is not straightforward or easy. Some participants link their faith with the occurrence of a miracle if they were to have a child.

Carol: I have gone through all these disappointments. It is difficult to get a successful outcome. For me, it would be a miracle if my ART treatment was successful and I was able to have my own baby. (Carol # 2)

For other participants like Lisa and Mark, their spiritual belief in Buddhism enabled them to endure and to accept their circumstances. They talked about *yuanfen* (predestined affinity, see Glossary) to explain the supernatural explanations of life's vicissitudes. Lisa perceived that there was an inner connection of *yuanfen* between herself and her embryo. If this *yuanfen* exists, she would be able to carry this baby to full term. If not, she would lose her baby. This did not mean that she was passive. Quite the opposite, she tried every means of protecting and nurturing her embryos to grow. In the end, if it were still due to other external factors that caused the failure, she would accept it as Heaven's will.

Lisa: Initially, I took absolute strict bed rest and followed the doctor's instructions...but eventually I realized that no matter what I was doing...I was still bleeding. I put my faith in Buddha and I knew if my baby and I had *yuanfen*...we would be together and he/she would grow. If we didn't have *yuanfen*...the baby would not grow...then I would have to accept this as my destiny. I surrendered myself and needed to accept whatever the outcome. By doing so, I felt more at peace with myself. (Lisa # 2)

Mark: In Buddhism, we follow the *yuanfen*...it means you are not insisting on your own desire or your way. Actually, in my case, the chance that we will have our own baby is slim as I am azoospermia. We have to depend on external forces to help us. I have even taken a lot of Chinese herbal medicine to improve my sperm quality and quantity and had an operation to retrieve the sperm. The other treatments all failed. So I know where I stand. Now this time, the doctor was able to retrieve my sperm and embryos were formed. And Lisa is pregnant now! But of course, I still follow the *yuanfen*...It helps me a lot as I do not want to be too mindful of whether it is a success or failure. Of course, it would be nice to be successful but even it is a failure, it is still fine. Even it is successful, you can't be too excited or too happy as you never know whether the pregnancy will continue to term or if the baby will be healthy or not. Here, I have to accept whatever the outcome. (Mark # 2)

Mark's quote shows how his understanding of his Buddhist faith helps him to accept the suffering of not being able to have his own child and to learn to let go, to leave the result to natural forces and surrender his desire. He is eager to accept either success or an unsuccessful result without demanding his own desire.

These findings illustrate the spiritual coping strategies that couples engaged in when they faced loss. The couples deployed spiritual strategies to endure, surrender and accept their negative treatment outcome. Chan et al. (2006) demonstrates how the infertile Chinese women who focused on spiritual health in mind, body and spirit, claimed to experience less anxiety during ART treatment.

Resigned acceptance

I used the term 'resigned acceptance' to describe how couples coped with their loss. This was a combination of coping strategies emphasizing Confucian, Buddhist and

Taoist principles of moderation, restraint and non-intervention. Participants actively engaged themselves in ART treatment. They actively coped, endured and managed their experiences. However, the recurrent unsuccessful outcomes after each treatment led them to gradually accept the reality. The theme 'resigned acceptance' implies that the couples attempted numerous infertility treatments and that they endured and preserved the process. Their active ways of making adjustments in various aspects of lifestyles were described in Chapter 5, section 5.3. They arrived at the point where they were willing to surrender their thoughts or wishes for successful outcomes and accept the negative outcomes. For them, the result was related to Heaven's will (*tien yee*) and they had to be content with the consequences rather than work against the natural course of reality.

Ben: I still believe that if we are meant to have our own child, no matter what the circumstances are, we will have our child. If not, it is no good pursuing thoughtlessly and demanding unrealistically and desperately. We have tried our best and have done what we can. The rest...leave it to Heaven's will. I believe that it will be Heaven's will if this cycle of treatment fails. Just accept it and move on for the next cycle. (Ben # 2)

Mike: We have been trying all these infertility treatments for over eight years now. Now we come to the stage of having ART treatment. If this treatment still fails, then it is Heaven's will and we should not insist on our own desire, just accept it. I really don't want us to have enormous stress and disappointment for my wife. (Mike # 2)

Ben and Mike illustrate their view of surrendering their wishes and desires and learning to accept the unsuccessful outcome. This form of acceptance is related to their inner feelings. The unsuccessful outcome was not due to their own inadequacy or not trying, it was due to other divine forces (Heaven's will).

Letting go

At the time of interview, Adrian and Rose decided to leave in the middle of their ART treatment as they had been accepted for the adoption of twins. Monica and Ian decided to finish the last two frozen embryos and then give up ART treatment. Jody

and Alex decided to leave ART treatment as Alex had failed to produce sperm. In the first interview, Adrian and Rose spent considerable time sharing the disappointment, despair, anger and frustration that they had gone through since engaging with their numerous infertility treatments. Their journey of letting go emerged after they had experienced countless failures and disappointments. Even in her first interview, Rose described her inner struggle as to whether or not she should pursue ART.

Rose: I have struggled for a long time to decide whether I should have another ART treatment. I feel as if I am setting myself up for another failure going through all that again. Plus ...right now, my life is good and I get satisfaction from my work. I have come to the stage of asking myself...do I really want to do this again? I can consider adoption. I struggled for over two weeks. In the end, I went to start the treatment. It was my inner struggle as to whether I should commit myself for this ART treatment. We had it done privately before. Now, this was our first time under the Health Board provision. I am scared that I will go through all the roller coaster emotions again...one minute I had hope and the next minute I was devastated because of the failure...I really don't want that. (Rose & Adrian #1)

Rose reached the stage of accepting and letting go of her wish to have her own child. The couples went through a long journey before they came to realize that they could let go of their desire and pursue other life goals. Letting go is not a linear process, in fact, it comes in sequential phases. Rose and Adrian had experienced numerous drawbacks, attempts and failures. They reached the point where they surrendered their thoughts of pursuing the chance to have a biological child and finally accepted adoption. Part of the letting go process enables couples to choose and to make choices in their life priorities. In Chapter 7, I explore the process whereby the couples reframe their views on infertility and reproductive choices.

Monica and Ian decided to finish the last two frozen embryos and then give up ART treatment. They had also come to terms with letting go of their thoughts of having a biological child.

Monica: Our mutual consensus is just to transfer the last embryo and that's it.

Annie: What has made you make this decision?

Monica: Um...I have given myself the chance of having ART treatment but my response is poor. The result has given me a final signal. I should not demand and force myself. Perhaps if my response was better, I would change my mind...but so far, even when the doctor increased the dosage, my follicle response was still very poor. Why should I force myself to achieve something that is unachievable? I really don't want to drag this out, I shall finish the last embryo transfer and I will not talk about this matter any more...

Ian: Not thinking about it any more...perhaps thinking about where we are going for our holiday. (Monica & Ian # 2)

Monica and Ian came to their realization that ART treatment was their last resort. The unsuccessful outcome made Monica face reality and accept her loss. She had reached the stage of giving up infertility treatment. She used a combination of self-directed approaches to cope with all the different infertility treatments and a fatalistic acceptance of the way things are.

Discussion

The results of this chapter reveal the emotional responses of men and women to their first ART cycle of treatment outcomes. Their narratives highlight important aspects of loss reaction that mimic the grief reaction of miscarriage. The realisation of loss goes through a passage of doubt, wishful thinking, disappointment and frustration. Women participants highlighted their experience of very painful periods which caused the couples anxiety and worry. Some women participants even described the pain as life threatening, a finding in the study conducted by Bansen & Stevens (1992) on women experiencing miscarriage. In general, women participants were angry, frustrated, disappointed, they wept and attempted to search for the causes of the unsuccessful outcomes; some exhibited denial and hope for a miracle. Some male participants showed stereotypical behaviour and appeared to be less emotional, with the experience apparently having had less impact on them. However, some male participants expressed strong emotional disappointment and attempted to avoid the situation, unable to offer support to their spouse. The findings are in line with other studies in which men avoided expressing their grief reaction and were less likely to talk about their loss with other people (Beutel et al. 1996; Johnson & Puddifoot

1996). The findings also support Holter et al.'s (2006) study in which the husbands exhibited negative emotions when the ART treatment outcome was unsuccessful.

Participants also expressed their feelings of powerlessness in rectifying their loss of biological reproductive function. Women participants expressed a deep sense of loss and grief about their female bodily function and realised that they had no control over the ART outcome. Reflected in their narratives is the commitment and effort the couples put into the treatment and the anger they expressed after knowing their diagnosis. Another major theme identified after the ART treatment was that participants (both male and female) felt concerned that, if the treatment revealed their possibility of being childless, this might alter or even threaten their marital relationship. The findings illustrate how men and women are different in the way they express their emotions through different language and behaviour rather than the actual differences in their intensity of feelings (Edelmann & Connolly 2000). However, the findings also illustrate how the different ways of expressing their emotions towards loss can cause tension and conflict in a spousal relationship. In Chapter 7, I explore in detail the impact of ART treatment on the couples' relationships.

Although Hong Kong has been returned to China as a Special Administrative Region, the Chinese traditional beliefs and Western influences remain and this has resulted in a complex intermix of Western and Chinese perspectives. The couples expressed how their ways of coping with loss were based on a combination of Confucianism, Buddhism, Taoism and Western influences. Using the Confucian approach, the participants tolerated the treatment and endured its physical and emotional demands (see Chapter 5), accepting the loss as part of the difficult hurdles to go through during the process. Using the Buddhist approach, they believed that they had tried and committed their efforts but when these were not successful, they were willing to accept the outcome rather than persevere with their own desire. They believe that suffering is part of the process and they were willing to accept the suffering imposed by the treatment. Using the Taoist approach, when the outcome was negative, they left things (infertility) as they were and did not interfere with the result, avoiding

inflicting their own desire against nature. Too often, it is easy to make cultural assumptions and say that all Chinese couples' coping behaviour is based on all three approaches. In fact, there were individual differences among the couples. These also depended on the geographical location, education, spiritual beliefs and the inferences of Western ideology. There were couples who had a strong sense of self and wanted to be in control of the treatment process. When they were confronted with the loss, they were more resilient in dealing with the problems and finding out if there was anything else that could be done to increase their chance of success. When they persistently received a negative outcome, they accepted it as if it was meant to be. The term 'fatalistic voluntarism' was used to describe the couples who used self-directed approaches to cope with their infertility problems and eventually fatalistic acceptance of the way things are. This is different from the passive way of just accepting fate or Heaven's will.

Most studies examining coping strategies for infertility treatment use the individual, either women or men, as the unit of analysis. As discussed in Chapter 1, this approach fails to show how couples deal with their disappointment and loss. Recent studies focusing on couples coping with infertility treatment have examined the couples' coping styles during ART (Peterson et al. 2003; Boivin & Schmidt, 2005; Peterson et al. 2009). The findings of this research demonstrate how the couples dealt with their loss by seeking support from spouse, family and health professionals and resigned themselves in line with Chinese health and spiritual beliefs. The findings indicate that most women participants expressed stronger emotional reactions about their loss than their spouses; they were more likely to verbalize their feelings and were willing to seek social support (Peterson et al. 2003; Peterson et al. 2009). Some male participants tended to choose less talking, distancing and self-regulating strategies (Lee et al 2000; Throsby and Gill 2004) than the women; most Chinese husbands played the supporter role to their spouses when the outcome failed (Chang & Mu 2006). Although the majority of women acknowledged the support they received from their husbands, they also felt isolated by the way their partners responded to the loss. Some women preferred to talk, to share and to work through their disappointment in conversation. Some men preferred to retreat into silence and

continue with “life as usual” as a way of dealing with the issue. The research interview offered the couples insight into how they actually felt while dealing with the loss. The descriptors that the wives and the husbands used appeared to reflect the stereotypical gender role specifically when dealing with the negative outcome. Caution is needed when interpreting the findings, to avoid making gendered assumptions of how men and women cope with loss. The findings indicate that the men had their own emotional reaction towards their loss and that the couples employed various strategies with which they felt comfortable, to help deal with the fallout of an unsuccessful outcome. Each couple was unique and had different reactions to and ways of dealing with loss, depending on their existing relationship and their desire for parenthood.

Some couples reached the point of letting go and were willing to accept their infertility and were prepared to take alternative paths. They had undergone their sufferings, their loss and come to their own realization that there are meanings to life other than having their own biological child. All participants were on their first cycle of treatment, except one couple who had had ART treatment before. By the end of the interviews, the majority of participants were still continuing their journey of resolving their fertility problem. They were hopeful as they still had chances and frozen embryos with which to continue treatment. The duration of the treatment and the physical, emotional and financial costs played an important part in their decision process as to whether or not to continue (Olivius et al. 2004; Verberg et al. 2008).

One important aspect of ART treatment is related to secrecy and disclosure. Given that ART treatment is private and personal, it was evident that some participants did not perceive it as necessary to disclose their loss to their family or friends or colleagues. This was very much related to their fear of losing face. Bond (1996) comments that personal disclosure is limited only to those with whom trust and respect has already been established. The data reflect that the couples were selective in choosing the people in whom they could confide.

Spiritual beliefs engendered the couples to cope with their loss. In Hong Kong,

participants have been exposed to Chinese and Western spiritual beliefs. Their beliefs in the Christian faith, Buddhism or Taoism have influenced the couples in their understanding and acceptance of their loss. This has helped them to answer part of their question: "Why me?" For the majority of couples, religious beliefs provided comfort and positive meaning in relation to their suffering and loss. The findings also support the study by Latifnejad et al. (2008), in which religion and spiritual beliefs provide a positive framework of reference for women to accept infertility. Suffering can be part of spiritual growth and may assist couples to transform their views about infertility and failure in the ART outcome (Chan et al. 2005). In Chapter 7, I address the impact of ART treatment on the couples' spiritual growth.

The optimistic views held while undergoing ART treatment were useful to the couples and reduced their stress in dealing with the uncertainty and ambivalence of the process. One of the possible explanations for these optimistic views might be due to the different Chinese and Buddhist philosophies that emphasize acceptance of life as it is, non-attachment to relationships as well as possessions (Dockett et al. 2003). This was illustrated in Lisa and Mark's quotes regarding how they dealt with the uncertainty of the potential pregnancy. The possible spirituality may strengthen and enable couples to maintain a sense of hope and optimism, despite a failed ART outcome. Hope is a dynamic process and it existed in various degrees among the couples. Hope helped the couples to persevere and to tolerate the uncertainty of the treatment. In Chapter 7, I address how the dynamic of hope changes during the course of treatment.

The emotions that the couples feel during ART treatment is always profound (Raphael-Leff 2005; Peterson et al. 2009; Schmidt 2010), for each couple has their own experience of loss. Although ART treatment has been offered to couples in Hong Kong as a way of dealing with infertility since 1989, there are different degrees of acceptance by couples and this is illustrated by their selective disclosure to their families and friends. Despite the physical and emotional demands of ART, most couples sought to use various strategies to deal with their loss. In this study, the couples had undergone their first ART treatment and still had the chance of

continuing. The theme of hope is prominent even though they experienced loss. In the following chapter, I describe how the couples make sense of ART treatment and how temporal and spiritual dimensions change the couples' perspectives towards it. I also address the impact of ART on the couples' relationship and their life context.

Chapter 7

Understanding the couples' reflections after ART treatment

Introduction

In previous chapters, I have addressed the couples' desire for parenthood and their reasons for pursuing ART. I have also explored how the couples experienced the physical and emotional demands of the treatment and the strategies that they used to deal with it. I have argued that the couples minimized the impact of the process and relinquished control to the health care professionals in order to deal with the uncertainty and ambiguity of the outcome.

In this chapter, I explore in more depth how the couples made sense of the treatment and the ways in which their expectations changed. I also address how the impact of ART enabled couples to gain new understanding about themselves and led them to reframe the concept of infertility and their reproductive choices. They found a new understanding of their perception of time, their perception of their own bodies and their perception of spiritual changes during the course of treatment. I also address the impact of the ART process on the couples' relationships. This chapter concludes with a discussion of the major issues that were raised from the couples' reflections.

7.1 Making sense of ART treatment

The reality of ART is that almost 80% of all treatment cycles will be unsuccessful (Human Fertilisation and Embrology Authority 2008). The dominant experience for the couples was a failed outcome therefore, rather than a successful one. As described in Chapter 4, ART treatment placed both physical and emotional demands on the couples and they made various adjustments to cope with the process. The overarching theme *Making sense of ART treatment* refers to the couples' own sense of understanding of what it was like to have ART and how the treatment affected them. The three major subthemes are: the meaning of success and failure, increasing

awareness of taking risks and regaining control.

Visions of success and failure connected with infertility and ART treatment

Feminist literature scrutinizes the concept of success in ART treatment, how the experience of this differs between the service provider and the participant couples, and discusses how the statistics to promote ART services are portrayed (Peters et al. 2007). To the participant couples, successful ART treatment means a live, healthy baby that they can take home. To the service provider, it means the clinical pregnancy rate. The UK Human Fertilisation and Embryology Authority (HFEA 2010) provides national data on the success rates for every licensed ART clinic. According to the HFEA (2010), the success rate of each clinic is presented in three different ways: comparison to the national average, the number of treatment cycles that resulted in a live birth and the predicted chance of having a live birth.

In Hong Kong, the Council of Human Reproduction Technology came into full effect in August 2007. The statistics provide only the on-going pregnancy rate for each centre, national data on live birth statistics is not yet available. The HFEA (2010) also highlights that there are different factors affecting the success rate, for example, the age of the women, the use of fresh or frozen embryos and an IVF cycle with or without ICSI. One of the most frequent and serious iatrogenic complications of ART is multiple pregnancy (Evers 2000). Several studies have indicated that multiple gestation is associated with increased mortality and morbidity for both mothers and fetuses (Fathalla 2002; Schieve et al. 2002). The chairman of the European Society of Human Reproduction and Embryology (ESHRE) has suggested that the most appropriate outcome variable of all ART treatments is the singleton live birth rate per cycle initiated (Evers 2000). However, this outcome criterion gives no indication of the health of the baby or its likelihood of survival. Using this criterion and judging from the statistics data, the chance of failure is more prominent than the chance of success. Therefore failure was a more universal feature experienced by my participants, although the nature, intensity and magnitude of failure varied from time to time, from person to person, and from treatment to treatment.

Failure could occur at any stage during the treatment cycles. The uncertainty of predicting what would happen meant the uncertainty of predicting failure or success.

Amy: The injections were very painful and I didn't know how many days I had to have them for. I felt uncertain and at some point, I thought about giving up but on the other hand, I was right in the middle of the treatment. My doctor also told me that he could not give me too many drugs as this might over-stimulate my ovary response. Initially, I wondered if I had fewer drugs, would I be able to produce enough eggs for fertilization? Yes...there is a lot of uncertainty and I really don't know if this treatment will be successful or not. (Amy # 2)

Some participants experienced failure because their treatment cycles were cancelled for a variety of reasons.

Tracy: We were very disappointed as the doctor had to stop giving me the hormonal drugs as he said it was over stimulating my ovaries. (Tracy #2)

Jody: There was no sperm retrieved when my husband went for the surgical procedure. Therefore, we cannot go any further than this... (Jody & Alec #2)

Susan: We had to go back to the clinic on the next date and wait to see if the embryos had fertilized. We had been waiting...and we were the last ones to be called in. I had a feeling that something was not quite right. The doctor told me that no egg had fertilized! The treatment had failed. (Susan #2)

Failure came intermittently and occasionally interspersed with the, albeit transient, joy of success. A small success, however short-lived, offered a gleam of hope or a feeling of what it could be like. For a moment, some felt that success had become more tangible and reachable.

Carol: I know that my endometriosis may affect my response to the treatment. I just hoped that it would be fine. When the doctor told me that they could retrieve fifteen embryos and that they were all fertilized, I was very happy. Now I know that I am closer to success. (Carol #2)

The menstrual period, which occurs many times through life, now acquired a different meaning. A period following a cycle of treatment meant failure, whilst the absence of a period became a sign of pregnancy, a sign of success. In Chapter 6, section 6.1, we learned how the participants portrayed their wish not to have a period.

Fear of failure could become a significant factor in inhibiting the decision to proceed or give up ART treatment prematurely.

Monica: At the beginning of the treatment, I did not think about it. Cos when you have a period, the outcome is a definite failure. But if the pregnancy test is positive, then you are pregnant. What if, after a short time, the pregnancy isn't stable and I need another operation for the miscarriage! I was extremely worried about it as I had a past experience of miscarriage before. I really didn't want to go through it again. (Monica #2)

Rose: I had an internal struggle for nearly two weeks before I decided to go for this treatment. The question that I asked myself was...what if I fail again? Right now, my life is stable and I am feeling good. If the treatment fails, then I put myself in the same situation that made me feel depressed and hopeless before. During those two weeks, I had bad dreams of the past. Anyway, I decided to go ahead with this treatment (Rose & Adrian #2)

Monica's treatment failed and she decided to utilize the remaining embryos and then quit ART. Rose and Adrian decided to quit even before the completion of their cycle. Monica's past experience of miscarriage and Rose's past experience of persistent failure in infertility treatment affected their perceptions of the process. Repeated failure enabled them to come to a realisation and to discover what they really wanted for themselves.

Among the couples that I interviewed, there were some who had had a positive pregnancy test after their first cycle of treatment. Their emotions were mixed with surprise and happiness. They had not anticipated a positive outcome since they had had an unsuccessful outcome before.

Samantha: When the time came for the pregnancy test, we were

very surprised...wow...it worked this time. It was a very nice feeling but I also started feeling a bit anxious and worried too...a mixture of feelings really (Samantha # 2)

Tim: We did not have high expectations at all since our first treatment cycle was unsuccessful. In fact, we anticipated that this one would be unsuccessful as well. Therefore, when we were told that the pregnancy test was positive, we were very happy indeed! However, after a few weeks, Samantha had a bit of bleeding and ended up in the A& E department at the middle of night. The doctor did an ultrasound scan and it was all right...thank God! We were both relieved. Afterwards, when her pregnancy was a bit more stable, we both felt more relaxed and content.. (Tim # 2)

Samantha and Tim had experienced both unsuccessful and successful ART outcomes. Success brought them the joy about the pregnancy as well as uncertainty, for the threat of miscarriage and other potential risks such as multiple pregnancy were still unknown.

Similarly, Mark shared his joy when Lisa's pregnancy was confirmed. He was joyful as he felt his commitment to and effort in the ART treatment had not been wasted.

Mark: I felt really good. At last, the treatment is a success and all of our efforts have not been wasted as we have tried all sorts of treatments for a very long time. Yes, we have spent a lot of money and time in dealing with our fertility problem. Above all, our hard work and pain have not been wasted. However, it is still early and we need to wait and see. (Mark # 2)

The interview quotes reflect the couples' narratives about their early response to a positive pregnancy test. To the couples, their ultimate concern was to have a healthy baby to take home with them. Therefore, any sign of bleeding was a threat to their chance of success in having a baby.

Increased awareness of risk-taking in ART treatment

The potential risks of ART treatment are directly associated with the side effects of fertility drugs, hyper stimulation of the ovaries and fallopian tubes, multiple births, pregnancy and perinatal complications and unknown long-term risks, such as cancer

of the reproductive organs (Filicori et al. 2005; Sutcliffe and Ludwig 2007). The themes of increasing awareness of risk-taking emerged from the interview data when the couples reflected on their first cycle of treatment. All medical treatment carries some risk and the more technology involved, the greater the risk. The participant couples assumed that ART treatment would enable them to conceive their own child. It is well known that the success of ART treatment is not guaranteed and that the outcome is uncertain (Peters et al. 2007). The couples perceived that it was 'worth it' and necessary, if the benefit of having their own child was greater than the risks then they were willing to accept it. Lisa stated that she was willing to accept the possible risks associated with the treatment because she wanted to get the result.

Lisa: Of course there are always certain risks involved in any medical treatment. I guess in relation to this treatment, the side effects of the hormonal drugs may affect the body. However, I have to weigh up the benefits and the risks...I mean the benefit will enable me to have my wanted child and this is what I want and I am willing to take the risks and bear with the odds...and that's fine for me. (Lisa #1)

In this study, most infertility treatments were carried out on the women even when infertility problems for men were identified (Becker & Nachtigall 1994). The men seldom faced risks themselves except for those who had to undergo microsurgical sperm retrieval (see Appendix 1). It is clear from the interview data that all the men were concerned about their wives being given hormonal drugs to stimulate the production of their eggs and the associated risks of the surgical procedures for egg retrieval and transfer.

Mike: Yeah...I worry about the effects of the hormonal injections on my wife's body, as I really don't know whether these drugs will cause any side effects in particular on her reproductive organs. (Mike # 2)

Kelvin: If my wife's body cannot stand the side effects, I would rather not have this treatment. (Kelvin # 2)

Brian: Only if she can cope with the treatment process. So far, she does not seem to have had much bother with the injections and egg retrieval...and so on. It seems ok. But if she was not coping with the process, then we may not continue...(Brian # 2)

In Chapter 5, section 5.1, I address how the female participants minimised the pain and discomfort that they experienced during the process. Becker & Nachtigall (1994, p.511) emphasise: “while women were preoccupied with trying to conceive, men were concerned about the potential loss of their partner through dangers they perceived in medical treatment”. The findings of this study support Becker & Nachtigall’s work, as it was the wife’s body that was subjected to the medical interventions even if she was not the one with the fertility problem.

The willingness of the couples to take risks was also related to their relationship with the doctors. In general, the greater the trust the participants had in the doctors, the more their willingness was to accept the risks. In Chapter 5, section 5.1, I showed how Mike’s quote illustrated his assumption that the doctor knows best and how he trusted the doctor to monitor the risks associated with the treatment. He relinquished his control to the doctor, which could also enable him to shift responsibility to the doctor in the case of an unsuccessful outcome.

To a certain extent, some women I interviewed assumed the role of final decision-maker as to whether or not to accept the risks. Fiona’s quote indicates that she was making her own choice regarding her own matters, not specifically to the infertility treatment. One male participant, Ian, felt that his wife should be the one to decide as it was her body that was subjected to the treatment.

Fiona: As usual, my husband never makes the decisions; he always lets me make my own decisions... (Fiona # 2)

Ian: Well, it is her body that has to go through the process. I would prefer her to make the decision. If she doesn’t want it, leave it. (Ian #2)

Time has an effect on the couples’ perceptions of the notion of risk in ART treatment. When the couples decided to have ART treatment, they had a preconceived idea that this medical treatment would resolve their infertility problems and enable them to have a child. In the first interviews, the participants did not particularly talk about any issues related to the associated risks of ART treatment. During the second

interview, the theme of an increasing awareness of the risks of ART emerged when the couples reflected on their experience after treatment. Those women who had pre-existing medical conditions, such as endometriosis or a polycystic ovary, were even more sensitive and aware of the potential risks involved. Carol, Monica and Amy, who had suffered from previous gynaecological conditions, expressed their concerns about the side effects of the hormonal drugs when they experienced pain, feelings of bloatedness, fatigue and nausea. They had more frequent scans and were informed about their poor response to the ovarian stimulating drugs. In Monica's case, her treatment cycle was cancelled due to the inadequate number of follicles.

Perceptions of risk were linked to each individual experience of infertility treatment, age, previous pregnancy loss and current concerns at the time of interview. Age plays an important factor in ART treatment. The chance of successful outcome decreases substantially with increasing female age (HFEA 2010). In fact, the unit policy was to give priority to women aged between 35 and 40. Fiona's quote illustrates how she perceived that her time was running out and that she had decided to go for the treatment in order to minimize the associated risks.

Fiona: The doctor told us that our infertility problem was unexplained. We have been married for over ten years and on and off we have tried different sorts of infertility treatment but all have failed. Initially, I did not feel a great sense of urgency. Now I am 38 and getting old to be pregnant. So, when the doctor offered us ART treatment, I felt that I must have it now. The doctor told us about the possible complications of this treatment. I really didn't perceive any major serious risks to my body and therefore, we decided to go for the treatment straightaway (Fiona & Ben #1)

The desire to conceive a child made the participants inclined to take possible risks in return for the ultimate goal – having a baby. Tracy was aware of the potential risks, however, she perceived that her gynaecological condition was a medical problem that could be cured by the treatment. She was willing to put herself at risk in pursuing her desire to have a child.

Tracy: The doctor told us that the percentage of success (take home baby rate) obviously was not optimistic. But it was better than doing nothing. For myself, I felt as if I needed to do something and

let something happen...I decided to have it. Cos...achieving the outcome is important but if the treatment poses serious threat to my health i.e. causing cancer, then I would reconsider. Otherwise, I will just go ahead and have it done. My gynaecological condition is an illness that needs to be treated so that I can become pregnant. Therefore, I am willing to take the risks...(Tracy & Victor #1)

Tracy realized that her hope of successful ART treatment was relatively low but she wanted to persevere with it. She talked about having the treatment as being 'better than doing nothing', which implied that there might be a chance of success even though it was low, but if she did not have the treatment, it would be a definite failure. Her action also gave her a sense of control over her environment. Chinese culture values the cultivation of self-reliance; an attitude of 'act and resist', as opposed to doing nothing, has been demonstrated in patients with cancer (Simpson 2005; Hou 2009). The tendency to resort to this approach may be understood in terms of the Confucian tradition of self-discipline in which the individual takes action to deal with the problem (Bond 1996).

The perception of risk influenced how the couples made their decision to have or to stop the treatment. Risk perception is based not only on what people think about the risk but also on how people feel about it. The timing also affects people's perceptions. In the ART context, at the beginning of the treatment, couples might not perceive any associated risks because finding the solution to solve their infertility is their priority. As they continue, they might experience possible side effects and confront the possibility of a poor response to the treatment. As the treatment progresses and the results are poor, then the awareness of risk emerges and they need to make a choice about whether or not to continue.

We are in control or we are not

The theme *We are in control or we are not* represents the fluidity of the sense of control experienced by the couples. Although it may appear to the couples that they have choices when they first decide to undergo ART treatment, this is sometimes illusory. In Chapter 4, section 4.2, both women and men described their loss of

control over their own reproductive functions and in response, they chose to take control by doing something (seeking treatment in the hope that this would resolve their infertility problems, see section 4.4). In Chapter 5, section 5.2, I showed how the participants highlighted their roller coaster emotions during the treatment process. The couples' descriptions illustrate how, in practice, even though they followed the protocol, they could not really influence the outcome. ART treatment has a series of steps where couples have no control at all. Carol and Jim expressed how they had no control over the number of eggs produced and the number of embryos transferred or implanted. Once they had embarked on the treatment, they perceived that they had no control whatsoever other than just to follow all the treatment protocols.

Carol: Once we had decided to go ahead with treatment, we followed through with the treatment protocol...the nasal spray, hormonal injections, egg retrieval, egg transfer and so on. We just followed through all the steps...we hardly had any control. (Carol & Jim #2)

Even if fertilization occurred, it did not guarantee that the embryo would embed in the uterus and grow into a fetus. Jim commented that he had no control over the process and expressed his frustration and disappointment.

Jim: Carol told me that the doctor had aspirated fifteen eggs and all were fertilized. Until now, Carol has used up two eggs. When I thought about this, I realised it would take nearly two years to finish transferring all the frozen embryos. Possibly, we might wait for another six years to finish the treatment! I would hate to waste another six years. I strongly don't want to drag along on this path...I would rather give up and stop the treatment. I would rather the doctor told me straight away that the treatments had failed so that I can plan for the future. Right now, everything has been put on hold because of *this* treatment. (Jim # 2)

Having fifteen fertilized eggs did not make Jim feel that he could influence the outcome, in fact, the number of fertilized eggs was going to prolong the duration of the treatment outcome. Eventually, he contemplated that the only way he could take control was through choosing to stay with the treatment or to withdraw. His quote reflects his prolonged frustration and disappointment. He wanted a quick fix to the

problem, but unfortunately ART treatment itself could not give him the certainty he desired.

Carol: I have given up my career since I started ART treatment. Right now, I don't know...even if I continue the treatment, it doesn't guarantee success. If I don't continue to try, I won't know exactly if I have failed completely. Actually, it's as if you are searching for your life course and you really don't know what the outcome will be. Or perhaps this is the choice that I choose. Right at this moment, I think I have made a good choice, but in fact, this may not be the best choice in the future. However, right now, I cannot do anything more than this, I would need great courage to give up the treatment. Indeed I would have to accept the consequence if I gave up...and at this moment, I do not have the courage to find a job and leave the treatment...(Carol # 2)

Carol doubted whether she had made the right choice as she was so uncertain about the ART outcome. Sandelowski (1987) uses the words "colour grey" to describe the uncertainty and ambiguity of infertility and its treatment outcome. Carol's quote also reflects how difficult it would be for her to quit once she had started the treatment, as she would need to accept being childless. She showed her ambiguity and uncertainty to the treatment.

7.2 Creating a new understanding on temporal and corporeal dimensions

Creating a new understanding required the couples not only to understand the uncertainty of ART, but also to put into perspective what was meaningful to them. As they went through the treatment, they made adjustments to deal with the demands it posed (see Chapter 5, section 5.3). Although physically and emotionally demanding, it helped the couple to examine their desire for parenthood and the meaning of having ART. The couples spoke of how time and their bodily functions changed as they went through the treatment. The theme *Creating an understanding* captures the couples' reflections on the temporal and corporeal dimensions.

Temporal dimension of infertility and ART treatment

The temporal dimensions of past, present and future constitute the horizons of our participants' temporal landscape, all of which they may utilize simultaneously. Experience of the past, for example, the previous cycle of treatment, influences the way the current one is experienced. The fear of and anticipation about the future cycle affects the anxiety and hope for the present treatment. So too when the experience of the current cycle of treatment has been less bad than expected, it might make the participants reinterpret their past and have a brighter expectation for their future.

Betty: This cycle of treatment was not too bad. I still have a frozen embryo. Next time, they will just put back the embryo. It should be fine. (Betty #2)

Fiona: I felt I could cope with this cycle of treatment. It was not as bad as I initially thought the first time. I have gained experience during this cycle. It could be easier next time.

Craig: We have gone through it once and we know what to expect next time. We have frozen embryos and next time, Fiona does not need to have all the injections again. I think the next treatment will be more pleasant. (Fiona & Craig #2)

The participants often drew their strength from the past, times that brought them Good memories.

Mike: I have faced difficulties worse than this (infertility) before, I should be fine. I am always proactive in finding a solution to solve the problem. Now, we are having ART treatment and to me, it is a way to solve my infertility problem. (Mike #2)

Tina: My family has been supportive in the past and they will do the same this time when I am going through ART treatment. (Tina #2)

Often, past time and events were re-examined in order to try to justify and find an explanation for the present. Past time became present pain.

Alice: If I had not had that miscarriage when I was younger, perhaps I might not have this problem now... (Alice #2)

Tracy: If I had known that that gynaecological operation would diminish my chance of fertility, I would have started planning to have children much earlier than this. Now I am running out of time. (Tracy #2)

Age is a mark of time that has elapsed. As described in Chapter 4, section 4.5, most of the participants developed a consciousness about how biological aging affected their reproductive function. Time that had passed meant the chance of getting pregnant was slipping away. Time appeared to be accelerating and was never under control.

When the couples were allowed only three cycles of treatment under the Hong Kong Health Authority provision, time appeared even shorter.

Becky: Initially I thought it might take a period of time to complete the three cycles of treatment. Now I realise that it isn't as long as you think. When you do not have any frozen embryos and then you start another new cycle of treatment...soon the three cycles of treatment come to end. (Becky #2)

Time always seemed to be in conflict with their interests, plans or aspirations. As in Chapter 5, section 5.1, the participants expressed that when they were offered ART treatment, the timing was not necessarily convenient as they also had to struggle with the demands of their work.

The challenge of waiting required the participant couples to learn new ways of being in the world. There are at least four types of waiting during the treatment process: waiting for the pregnancy test results, waiting for the doctor's reply regarding whether they will be offered another treatment cycle, waiting to do something different and waiting to become a parent. The challenge of waiting for the pregnancy test results was a common experience that intensified the uncertainty experience. In Chapter 5, section 5.2, I addressed the emotional turmoil described by participants while waiting for the scan and pregnancy test results; and in Chapter 6, section 6.1,

how the participant couples responded to the unsuccessful outcome. Their initial expectation was that ART might help them to have their own child. However, when they experienced a failed outcome, they were uncertain and also felt vulnerable even when they had frozen embryos with which to continue the treatment. The participants spoke of their increased uncertainty about whether ART would help them to have a successful conception, of their difficulty in waiting for results and their sense of urgency in the uncertainty of the experience.

Time also seemed to be caught between life goals for work and the goal of becoming a parent. The uncertainty of ART treatment created a space within which couples searched for parenthood or confirmed their infertility status. During ART treatment, our participants expressed their uncertainty by hoping for the best.

Brian: Right now, I really don't know...I suppose ART treatment may give us hope to achieve our desire for a biological child. But I also recognize that it is not easy to be successful with this treatment. I think we will continue with the treatment...at least as long as the doctor lets us. At this moment in time, I don't have a definite answer as to how long or how many cycles we want to continue.

Susan: I agree with what Brian says. Right now, if we are given the chance to continue the treatment, we will...and just wait and see what happens next. (Brian & Susan #2)

Brian and Susan expressed their feelings of uncertainty but with an element of hope towards ART. They were in a state of limbo whereby they were tolerating the uncertainty and ambiguity created by the treatment (Allan 2007, 2009).

Time seemed to drag when waiting for the result of a test or the outcome of a treatment cycle. Its character also changed with the space in which the participants found themselves. Susan and Brian talked about how time felt for them.

Susan: Time seemed to drag in the ART clinic while we were waiting to be called in for the doctor to tell us whether they were going to offer us another cycle of treatment. (Susan and Brian #2)

Time was experienced as a kind of suspense and as a kind of revelation.

Betty: Will they find any eggs this time? We shall know in 15 minutes time. (Betty # 2)

Fiona: Will this cycle be successful? (Fiona #2)

Becky: We will find out when the time (period) comes. (Becky #2)

Time can bring a person to his/her senses in realising that ART treatment is not the solution to their desire for a child. The persistent physical and emotional demands of the treatment and the persistent negative outcomes can raise a couple's awareness of the need to consider stopping or quitting.

Rose: We have been through numerous treatments and experienced all the up and downs emotion-wise. Several cycles have failed and I think it is enough. Perhaps it is time to stop.

Adrian: It is hard to see Rose suffer so much from the infertility treatment. I think it is also time to halt. (Rose & Adrian #2)

Bodily functions after ART treatment

When the participant couples went through ART treatment, their bodies experienced the process. Afterwards, they felt that their bodies had been affected by it. In the Chinese context, a healthy body encapsulates the holistic aspects of physical, emotional and mental wellbeing. In Chapter 5, section 5.2, the participants described how the treatment had affected them physically, emotionally and mentally. Afterwards, both men and women related how the healthy status of their bodily function was a benchmark for them to judge when or whether they should continue with the treatment. They often said that they would wait until their bodies were fully recuperated before embarking on the next cycle of treatment. Amy's quote reflects her emphasis on recuperating before deciding on the next treatment.

Amy: It is up to me when to start the next treatment. We have three frozen embryos so I shall wait until my body is recovered before I resume. In addition, my husband told me that he was more concerned about my body being healthy and that he would

compensate having a baby if my health was going to be adversely affected. (Amy #2)

Other participants highlighted the use of Traditional Chinese (herbal) Medicine to recuperate. As described in Chapter 2, section 2.3, TCM emphasizes the importance of mind, body and spiritual systems and how maintaining harmony between all these aspects are important for good health. After ART treatment, some participant couples highlighted their use of TCM to recuperate.

Fiona: I feel that the herbal TCM will help to improve our general health status rather than helping me to have a baby like ART treatment does. I believe that when your body is in a balanced state of health, your chance of conception increases. But if your body's health status is poor, then it definitely affects your chance of success. I am a strong believer that TCM helps to improve the health status as Western medicine is more focused on the physical side of treatment rather than treating the body holistically. Of course, TCM has been around for well over several thousand years in China and it must have its place of importance. (Fiona #2)

Fiona reflected on her point of view between TCM and Western medicine. She expressed her common knowledge and beliefs that TCM can help bodily functions to recuperate, whereas Western medicine is useful for diagnosis and treating symptoms, but can be more damaging.

Other couples used TCM as an adjunct treatment. Steve and Jim took TCM to improve their sperm motility and sperm count beforehand. Betty and Tina also took it to help recuperate their bodily functions after the treatment. They emphasized how TCM counteracted the side effects of the hormonal drugs.

Other participants chose TCM as a default method when Western ART treatment failed.

Brian: To be honest, I don't have great expectations of Traditional Chinese Medicine but I do believe it has its own importance. The herbal medicines are all plant products, which are not chemical products as in Western medicine. The herbal medicine will not cause any side effects and it has been used for over thousands of years in China. Furthermore, there are successful cases of using

TCM in treating infertility and the responses are not bad. Therefore, we may try TCM after this treatment as this may be another alternative to help us to conceive without taking hormonal drugs (Brian #2)

The participant couples did not directly discuss their use of TCM with the ART practitioners unless asked. They were uncertain whether ART practitioners would support their use of TCM.

Betty: I tend not to talk about my use of TCM with the doctor, as I am not sure whether he would like me to use it. But I ensure that I am not using both at the same time. Cos, I would use dietary adjustment to improve my health and if necessary I may try herbal medicine to rectify my body status (Betty #2)

Becky: After the treatment, my mother would boil nutritious soup that helped to recuperate my body to counteract the effect of the hormonal treatment. (Becky #2)

There is a strong cultural belief about food impacting on health, particularly during treatment and recovery. Participant couples used *shil liao* (dietary practices) to maintain their health during and after treatment (see Chapter 5, section 5.3). Perhaps the couples used TCM as a way of taking control of their treatment. However, not every participant couple used TCM to recuperate, some even rejected the idea because of the difference in philosophy.

Tracy: Now we are taking on board the Western ART treatment, I think it is better as this will definitely achieve a result. I am not taking TCM, as it is a different system of treatment really. (Tracy #2)

7.3 Reframing infertility and ART treatment

Reframing infertility and ART treatment within a spiritual dimension

McSherry (2006, p. 85) suggests spirituality is an invisible force that brings unity and harmony to self, other and the larger universe. The spiritual dimension assists the individual in finding meaning, purpose and fulfillment. In the interviews, the couples

described the support they derived from their spiritual beliefs while coping with the uncertainty and stressful nature of the treatment (see Chapter 6, pp. 180-181). Here, I would like to discuss how spirituality or religious beliefs can change couples' perceptions of their infertility after the treatment and enhance their ability to reprioritize their life goals. Those that had religious beliefs commented on an increase in their faith after the treatment. Both Fiona and Jim were Christian. Fiona used the words 'it is God's plan'; 'it is meant to be' while contemplating her loss and failed outcomes.

Fiona: I have counted on lots of blessings from God. Since the treatment, my spiritual faith has strengthened...I have learned to count my blessings rather than my loss...God has given me a supportive husband and family...even my boss supported me during my treatment. I feel that I have gained a lot rather than lost anything, even though the treatment failed (crying)... (Fiona # 2)

Jim: When the treatment failed, I was very down and I asked why it was not successful. I also asked God why he did not grant this to me. It is hard to accept reality but I trust God has a plan for us. (Jim #2)

Their spiritual faith enabled the couples to contemplate the negative outcome of their treatment. It also gave them a way of accepting the situation. For couples that followed the Buddhist faith, the understanding of suffering took on a different meaning. They believed that suffering was part of life and attempted to let go their desire.

Mark: If you insist on what is going to happen, it brings on suffering and pain. If you insist on having children, then your desires cause you to suffer. If you have tried your best, then let it be... (Mark # 2)

Some couples did not relate this to spiritual belief but rather to *tien* or 'heaven's fate' or 'one's fate'. This implies that no one can oppose or reject destiny. In Chinese terms, it is said to be one's *minsu* (fate), *dinshu* (predestination) or *yunshu* (destiny cycle), which means that there are forces of nature operating to determine individual life experiences, including one's life-span (Ho & Lisowski, 1997). With this philosophical thinking, the participants accepted their fate of being childless. But this

acceptance was not passive; the participants committed themselves to various treatments and used different means of resolving their infertility problems. In the end, when the results proved negative, they would be able to accept it as their fate with no regret.

Kelvin: I will take every opportunity to solve this problem. This is why we go through this treatment. Towards the end, if we are still not getting what we want, we have to accept it as our destiny.
(Kelvin # 2)

Lisa: I don't passively accept infertility without doing anything. I am determined to try all possible treatments. I am committed to getting the result. Having said that, if I have tried hard and I am still not getting any result, then I would accept it as heaven's will, as my fate (Lisa & Mark #1)

The uncertainty and ambiguity of the treatment created tension and disappointment among the couples. Spiritual beliefs played a part in leading them to comprehend their infertility problems and their experience of ART treatment (Latifnejad et al. 2008). Through spiritual reflection, the couples re-examined their faith and their infertility.

Reprioritizing and reconstructing life goals

When the couples came to have ART treatment, the majority of them had already been through numerous other treatments. ART was relatively their last chance. The repeated unsuccessful ART outcomes led them to confront their infertility issues and redefine what it meant to become a childless couple. Some couples took a positive approach to accepting failure and somehow reframed the meaning of infertility.

Alec: If there is something in your life and you cannot change it, then it is better to accept it (Alec # 2)

Tracy: My husband would say that it didn't matter even if we could not have our child. He also told me that there were pros and cons to having children. Yeah...we have discussed this issue and I do not want to talk about it again and again...Perhaps we both feel the same way that we cannot do anything anymore...even if we talk

about it 50 or 500 times, it does not mean anything. We believe that life still needs to go on...even if we don't have our own child, we just need to accept it. (Tracy # 2)

Both Alec and Tracy felt that they could not do anything more to change reality. Therefore, they might be better to accept it and move forward with their lives. They did not perceive infertility as a major life crisis and were able to move on and accept it as part of life.

Some couples experienced constant failure and disappointment throughout their infertility treatment. In reflecting on their ART experience, they felt that it had helped them to reprioritize their life goals. They came to realize how their infertility and the treatment had impacted on their lives. Through their constant struggle, they became aware that there was another side of life rather than just the fertility journey. The following quote illustrates how Alice came to her realization and acceptance:

Alice: Before the treatment, I focused mainly on my job and nothing else. After the treatment, I felt that I appreciated my family more. Now I pay more attention to my own health as well. Before, when I had pain, I just took a painkiller without really thinking about the impact of my diet, exercise and rest to improve my health. Secondly, I became more in control of myself...my own emotional health. If I am upset and unhappy, I cannot solve the problem because I will feel more upset, it will also affect my family. When I become more relaxed, other people feel it too. Actually, I am taking more responsibility because when my family members see me happy they do not worry about me as well. (Alice # 2)

Alice's quote illustrates her awareness of her health status after the treatment. She paid more attention to her lifestyle in terms of healthy diet, exercise and rest. She also realized how her emotional response affected her family, particularly her significant others. She wanted to take responsibility for her wellbeing. Doing this could also help to ease her major focus in pursuing her desire to bear children.

Rose: We have been through all sorts of infertility treatments over a very long time. I have quit my job for the treatment and experienced all sorts of disappointments and failures. At one point, I asked myself...what is my life purpose? Is having my baby the

only purpose? Well, we have given up so much for these treatments...my life seems to be so narrowly focused. Is having a baby the only meaning in my life? (Rose & Adrian # 2)

Rose's quote explicitly challenges her own life goal. After her constant disappointment and failure, she raises an important question about her own life purpose. The following quote illustrates how she finally emerged from her infertility journey:

Rose: After numerous failures, I took up a different career and worked full time. I have found a lot of life satisfaction from my work. I have reviewed and restructured my own self-esteem. My esteem is no longer based on being a mother. My life is good right now and I am satisfied. I have come to the stage that I do not necessarily need to be a mother after all. I can consider adoption... (Rose & Adrian # 2)

Rose's quote illustrates the recovery of her self-esteem. Her new commitment in her career helped her to build up confidence and life satisfaction. She was no longer focused on the life goal of having her own child. Her transition did not come suddenly but through her experiences of constant disappointment and failure, eventually she had the choice to let go of her desire to bear a child and refocus on her career.

Redefining reproductive choice

For the couples, the essence of going through ART treatment was to achieve their desire to have their own biological child. In this study, all participants were married and were offered ART treatment using their own sperm and eggs. After repeated failed outcomes, some couples became aware that they might not be able to have their own biological child. Some participants shared their perceptions about the possibility of being childless in their marriage and their views on adoption.

The couples held different views about adoption, in general, the majority did not favour it. In fact, Monica and Ian were strongly against adoption as their choice, even if all their treatments failed. They explicitly stated that they would rather remain

childless than go for adoption.

Annie: Would you consider adoption?

Ian: Woo! Definitely not!

Monica: We have discussed this issue...neither of us would go for it.

Ian: Even if Monica wanted it, I wouldn't...Yeah...bring up another couple's child...never would I choose to do so!

Monica: We are afraid that we may regret it after all!

Ian: It is impossible...definitely impossible.

Monica: Well...if we adopt a child...if he/she is good, that's fine. But if he/she isn't good...this will also affect us. There is no need to place this burden on us.

Ian: I definitely don't want to go for adoption... I definitely reject this idea!

Monica: We never thought about this as our choice. (Monica & Ian # 2)

The interview quotes reflect a very strong opposition to adoption from Ian. He rejected the notion as he thought it was too troublesome a burden to bring up a child who was not blood related. Monica worried about the consequence of bringing up an adopted child who might have different personality traits.

Similarly, Jim also expressed strong opposition to adoption.

Jim: I am strongly opposed to my mother-in-law's suggestion about adoption. As she held the old folk tradition that if we adopted a child, he or she might bring along another brother or sister. I would rather be a *foster parent* (see Glossary) than be an adoptive parent. Being a sponsor parent, you don't need to have the child at home but you still help his/her needs. I use the term "You are wasting your money and you are asking for suffering..." When you bring up a child, it is not as if you are getting a dog. I am absolutely against this idea. If towards the end, we are unsuccessful in all possible infertility treatments, I will bring it to closure. I wouldn't adopt a child even if the child was from my brother. I am ok. to look after my brother's child if he needs help. But it would be entirely different form of care provided if we adopted this child. I do not want any adoption at all and I won't change my mind. (Jim & Carol # 2)

Jim's quote was strongly worded to express his views against adoption. One possible explanation for this was that he was concerned about the quality of the invisible

background of an adopted child. He had apprehensions about the genetic make-up of an adoptee and how this would shape the characteristics of the child.

There were different views held by the couples that were more receptive to the idea of adoption. Among the fifteen couples, Rose and Adrian actually adopted a set of twins during the ART treatment. Alec and Jody considered adoption as their final option. Other couples were still waiting and were not ready to make a decision. Alec commented that his willingness to accept adoption as an alternative choice was because he had chosen to focus on family life with children instead of the genetic material from both parents.

Alec: I know that it will take years of preparation and waiting for adoption. Right now, we are on the waiting list and when the moment comes, we will make a decision. I don't think I really mind if the child is not blood related to me. I mean if I want to have a child, I want to create a happy family life, and I do not need to be mindful if this is my genetic child or not. It is no good to dwell on this, it only makes you unhappy and make the situation worse really." (Alec # 2)

Alec expressed his viewpoint towards adoption. He was open to accepting that an adopted child would not be genetically related. He focused on the aspect of creating a family, perhaps more related to the role of being a parent.

Similarly, Adrian put forward a similar viewpoint about his decision on adoption. Adrian lived in Australia for a period of time and he experienced a mix of both Chinese and Western culture.

Adrian: Well, I think if it is being taken from the immortality aspect...I mean to pass on genes. But what exactly is the meaning of genes? Is it related to personality and characteristics traits? Therefore when a child grows up, he or she has grounded principles in his/her life and his/her contribution to society. If so, is it necessary to have our own biological child to express this quality? I feel that the spiritual component is more important than the physical component. If I can split the spiritual form...I mean if my outlook on life can influence another person, then whether I adopt or not, it is the same. I can still transfer my quality to my adopted child. To me, it is not because my wife wants to have a pregnancy

experience; we want to build our family with children, have different experiences through the stages of our lives and learn how to pass on our life skills to our children. (Adrian & Rose # 1)

Adrian's quote illustrates the meaning for him of having a family with children. His viewpoint on bringing up a child not only focuses on the genetic aspects but also on the emotional and spiritual aspects. He focuses on transferring his personal qualities, which involve emotional and spiritual components, to a child. To him, it is not necessary to be blood related because these qualities can be transferred or given to any child. He has taken a contemporary approach to childbearing.

7.4 Couples' relationships

Marital relationships

Some of the couples made positive comments about their marital relationships after their ART treatment. They felt that the experience had deepened their level of understanding for each other. The following quotes illustrate the impact of the treatment on their marital relationships:

Bob: As a result of our ART treatment, we tend to communicate at a deeper level. It gives me an opportunity to care for my wife. Or perhaps it has given us an opportunity to care for each other at a deeper level. I did not have this feeling before. Before, when she was emotional, I did not know what had caused it. Now, she talks about her feelings, I can understand her more.

Alice: I have talked to Bob more. Even though he is not saying much, I can feel his caring and understanding. To a certain extent, the treatment has brought us closer to each other. (Bob & Alice # 2)

Kelvin: We feel our marital relationship has strengthened since the treatment as we both went through the process together. We faced the challenge and stress together...

Jane: Yes, I agree...we are mutually supporting each other. Even though this cycle failed I feel that Kelvin is more attentive to and caring for me. (Kelvin & Jane # 2)

Bob and Alice expressed how the ART treatment enabled them to communicate at a

deeper level and also provided an opportunity for Bob to understand Alice's emotions. Kelvin and Jane commented that they both went through the same challenge and mutually supported each other during the process. These findings share similar results with those of Webb & Daniluk (1999), who state that infertility serves as a catalyst for building stronger, closer relationships among couples.

Fiona and Craig shared similar responses to Bob and Alice:

Fiona: I felt that my husband cared about me during the treatment. We were more open to discussing things and he was willing to tell me about his work as well. I feel that we have a deeper understanding in our relationships since the treatment.

Craig: I share the same feelings as my wife. During the treatment, I had the opportunity to take care of and support her. The treatment gave us an opportunity to care for and appreciate each other more. Apart from talking about the treatment, I can open up a bit more to talk about my work stress. I agree that ART treatment has brought us closer together (Fiona & Craig # 2)

In other words, Craig and Fiona illustrate that ART treatment had a positive effect on their mutual understanding. It also provided an opportunity for them to communicate at a deeper level.

It would be simplistic to assume that the impact of ART on relationships was always positive. There were a few couples who expressed that they felt tension and uncertainty in their relationship as a result of the treatment.

Monica: Although my husband tells me that he does not absolutely need to have children, after the treatment failed, I had a sense of doubt...what if my husband changes his mind and wants to have a child? Would he take a mistress to bear a child for him? Then what would I do?

Ian: My wife told me about her uncertainty and her way of thinking...but I have never thought about having another woman to bear a child for me! (Monica & Ian # 2)

Monica was uncertain about her husband's reaction if childlessness was to become a reality in their relationship. She might still hold the traditional gender-stereotypical

role of *xiang fu jiao zi* (supporting her husband and rearing sons) as being important to their marriage. In some ways, Ian seemed to understand Monica's concern and fear, but he denied that he would jeopardise their marital relationship for another woman to bear his child.

Carol expressed similar concerns to Monica. Her quote reflects her desperation and disappointment. She was worried about marriage without children but doubted if this would affect their relationship.

Carol: I always thought that I would have my own child. ART treatment is my last chance. I worry that towards the end, I may perhaps have to accept the possibility of a childless marriage. I know my husband loves children very much and this would be very disappointing for him. I am not sure if this (childlessness) would affect our marriage. Right now, I really don't want to think about such a negative outcome. (Carol #2)

Couples in which only the male partner had a fertility problem commented that there was no change in their marital relationship.

Jody: My husband is usually good to me. Our marital relationship has stayed the same and I don't feel that ART treatment has affected it.

Alec: Our relationship is more or less the same as before. (Jody & Alec #2)

Betty: We have quite a stable relationship and I don't think ART has caused any changes for us. Perhaps we talk a bit more as the treatment is new to us. (Betty # 2)

Overall, the treatment resulted in both positive and negative effects on the marital relationship. Female participants who faced the possibility of infertility felt doubt and insecurity about their marital relationship. This finding supports those of others who report that infertility diagnosis may cause distress and less marital satisfaction (Lee et al. 2001; Chan et al. 2006).

Sexual relationships

The couples were less inclined to talk about their sexual relations during and after treatment. Among all the couples that I interviewed, Fiona and Bob were the only couple who brought up the issue. Their quote implies their desire for sexual intercourse and hopes for natural conception.

Bob: One of the drawbacks of the ART treatment process was that it affected our sex life. We couldn't come together during the treatment. And now we can. I couldn't remember if I had asked the doctor whether we could resume our sex life or not after the consultation. Then I asked my wife if we could come together and she said...o.k. then we came together. My wife said it was her decision not the doctor's. Then I wondered if we came together after the treatment, and it was her ovulation time, then we might have the chance to have a baby. I haven't asked the doctor... I've just asked my wife and haven't talked to others about this. I've only asked my wife...

Fiona : He is silly.

Bob: Then we came together twice after the treatment and hoped that it might be possible and we were happy too. (Bob & Fiona # 2)

Chinese couples are modest and reserved about expressing themselves on sexual issues, and this reflects a wider taboo about sexual matters in traditional Chinese culture (Guan 2004). It was not surprising that only one couple openly talked about the subject. Even so, their language was implicit and they used the words '*come together*' rather than more explicit language, for example '*having sex*'. Interview data lacks sufficient information to address the sexual functioning between couples during and after ART treatment. This might be due to cultural sensitivity in relation to this issue.

Embracing hope

The theme 'embracing hope' permeates the interview data throughout the ART treatment. Hope is a dynamic phenomenon, which is enhanced by different factors and by a range of people. For some couples, hope was self-generated as they believed that the ART treatment brought them hope. These couples used words such

as 'wish', 'hope', 'goal', 'faith', 'expectation', 'positive thinking', 'having the chance', 'optimism' and 'each step is a success'. Determination and willpower seemed to be important aspects for the couples that had hope. The following quotes illustrate how the couples expressed their feelings of hope:

Jim: I really hope that this cycle of ART treatment will be successful. If not, we still have another two to go. We have been struggling with infertility for over four years now. I do expect and hope that this treatment will help us to resolve our fertility problem and that we will have our child. (Jim & Carol # 1)

Jim related his hope for the possibility that the treatment would help him to have his own child. He also related his hope that with another two cycles of treatment to go, his wish may be achieved.

Hope has a temporal dimension that combines the past, present and future. The past acts to reinforce or let go of hope as the participants remembered their experience of failed outcomes. While they were going through the treatment process they focused on the present time so as to give themselves a chance of success. Betty and Tina both had positive thoughts that their ART treatment would be successful.

Betty: I hope that the ART treatment will be successful so that we will have our baby after all... (Betty & Ian # 1)

Tina: We are optimistic that this treatment will go well... (Tina & Sandy #1)

The length of time dimension may range from the near to the unknown future, and the contexts of hope can change during that time. Initially the participants may have had high hopes that ART would definitely help them to have their babies. This is reflected in comments such as: "we hope that ART treatment will resolve our fertility problems once and for all..." or "ART treatment will give us a final conclusion or answer to our fertility problems." After the first treatment, the couples changed their expectations and came to realise that the actual success rate was relatively low and that their hopes had altered.

Craig: When the doctor suggested ART treatment for us, my initial expectation was very high. However, after attending the information seminar where the doctor talked about a 20% successful (take home baby) rate, I felt that this was relatively low and that maybe it wouldn't make any difference if we went ahead with the treatment or not. The chance of success was relatively low...but it still gave us hope. Now our first treatment has failed ...it was not easy to accept the result...but I still maintain hope. As long as there is a chance to continue the treatment, I still have hope. (Craig # 2)

Craig was realistic, as he understood that the success rate was only 20%. His expectations changed after having the treatment; however, he still maintained hope, as he believed that while there was a chance, there was hope.

Other couples' perceptions of hope changed as they went through the treatment process. Monica had a poor response to the hormonal stimulation and had only four eggs retrieved. Her poor medical response led her to have very low expectations.

Monica: I was disappointed with my result when the doctor told me that the follicle stimulation was not too good. When he did the scan, he told me that I had four egg follicles but when he retrieved the eggs, he only managed to aspirate three. I thought I would have four instead of three eggs. Now my first treatment has failed...but I still have another chance to transfer the remaining ovum. But my hope of success is very low...it means that I just want to finish it...no expectation of success at all really. It will be our last time! (Monica & Ian # 2)

Ian: If there is still a chance, we will complete the treatment. The treatment itself is too hard for Monica and we shouldn't put too much pressure on ourselves...we will finish with the remaining ovum and that's it. (Monica & Ian # 2)

Monica's quote illustrates how her expectations changed when she had a poor medical response. Her hope for success also changed because of her failed outcome. ART treatment was the last chance for Monica and Ian. Ian defended Monica in terms of the physical and emotional hardship of ART treatment and attempted to make the decision to stop. ART acted to bring closure on their infertility treatment.

Brian commented that he did not have a definite timetable for stopping ART, as they were in the middle of the treatment and he was not ready to give up yet. His hope was sustained as they still had the choice of starting a second cycle. However, his hope shifted from having ART to an alternative treatment.

Brian: Right now, I don't think I have a specific timetable yet. I mean I am still finding out and researching. We will continue the treatment journey. Let's say, if the doctor does not offer us another cycle of treatment, we may think about a private consultation or going abroad to have another treatment. We may think about egg donation. Or perhaps, we may go back to Traditional Chinese Herbal Medicine. We will try all different sorts of methods. When is the time to stop treatment...I don't know yet. But I feel that I shall know when that time comes, and we will be ready to stop. Perhaps, when we reach 38 years old, we may think differently. Right now, I don't know...(Brian # 2)

This couple showed a different kind of hope, that is, hope for a resolution that would allow for options other than conceiving a baby.

Discussion

This chapter reviews the participants' accounts of their reflections and provides meaningful insights into their experiences of ART treatment. Their experiences changed their understanding of their infertility problems and treatment. They spoke of their experiences of success and failure in making sense of ART treatment, although ultimately, to most couples the treatment brought disappointment and a sense of loss. Success may mean different things to different people. For the couples, the meaning of success was interpreted in terms of embarking on a journey in which each step of success in the treatment brought them closer to their goal. There were only two couples who achieved a positive pregnancy test. Their experience of success was unexpected and filled with joy as well as uncertainty. The experience of failure was also mingled with uncertainty however, as there was always a possibility that further treatment would be offered or that there were still frozen embryos which might eventually present a chance of success. The literature suggests that the interpretation of success is problematic and is different for each couple and for each

ART centre (Peters et al. 2007). Min et al. (2004) propose that the best outcome for ART treatment should be the singleton, term gestation, live birth rate per cycle initiated. Based on this outcome, a couple would only have an 11.1% chance of delivering a single healthy baby at term (Min et al. 2004). Reflecting on these statistics, they are much lower than the live birth rate proposed by the HFEA (see Chapter 6, Introduction). Infertile couples are vulnerable consumers who are largely unable to judge the quality of technological care (Meerabeau 1998). Nevertheless, the findings of this study have shown that the couples' understanding of the success of ART was a 'take-home baby'. Although cognitively they knew the success rate was below 20%, they still had a glimpse of hope for their treatment. Through the experience of ART, the couples realised the difficulty in achieving a successful pregnancy. For some participant couples, the treatment provided a possibility for them to achieve conception even though their endpoint was failure.

In the context of control, the couples felt that they lost control of their reproductive choices. Initially, they had assumed that they had the right to decide when and when not to have their children. The diagnosis of infertility caused them surprise, shock and denial (see also Imeson & McMurray, 1996; Lee & Kuo, 2000; Lee & Chu, 2001; Throsby & Gill, 2004). After accepting the reality, they proactively chose to do something by having ART treatment. Their decision to have the treatment made them think that they were in control and able to rectify their infertility problem. Doing something, as opposed to doing nothing, was perceived as being the couples' choice. However, when they embarked on the treatment, they soon realised that they had no control over the timing and treatment outcome (see also Redshaw et al. 2007). There were areas of uncertainty during the treatment over which they really had no control at all, as the women participants described, such as the physical and emotional demands of the treatment. Once the couples had entered the process, they felt powerless or perhaps they wanted to relinquish their control completely to the expert, the doctor. The interviews illustrate the trust that the couples put in the doctors. Carol and Tracy perceived that their infertility was an illness that needed to be cured by ART treatment. Taking on the sick role caused them to relinquish their control to the health care professionals. The issue of patient control is, however, somewhat

paradoxical. Although the couples may have decided to pursue ART treatment because of their infertility problem, they also thought that it would give them the answer. They had an underlying attitude that “doctor knows best”. In fact, a number of statements illustrate how the couples were willing to take the doctor’s advice and depend upon the doctor’s decision as to whether to continue or quit the treatment. They gave the medical professionals the responsibility of deciding. In this way, they relinquished responsibility for their failed fertility. The only choice that the couples had left was their decision to stop the treatment (see Section 7.1, p.199). Most of the participant couples in this study still had the chance to continue their cycle, except those who had a very poor response to the egg stimulation or had no sperm aspirated, or who were identified by the doctor as being physiologically at risk from further treatment.

Time had an existential meaning for the participant couples. The female participants talked about their biological clock (see Chapter 4, section 4.5) and their realisation of their limits in their reproductive capacity. During ART treatment, age is a crucial indicator as, for women who are over 40, the chance of success is relatively much lower (HFEA 2010). The male participants also expressed concern over their biological clock with regard to becoming a father and shared their concerns about leaving fatherhood until a later stage in life. The couples highlighted the challenges of waiting for their results and waiting to become parents or not. Other scholars such as Sandelowski (1993) and Becker (1999) argue that medicine creates uncertainty and ambiguity for patients. Sandelowski (1993) states that infertility treatment may enable the couple to become parents as well as not to become parents when it fails. Allan (2009) highlights how the British ART clinic provides a place for couples to manage their uncertainty and ambiguity towards treatment. I argue that this study supports Allan’s work in that the couples tolerated their experiences of uncertainty and ambiguity imposed by the treatment, but felt in limbo, that is, between getting to become or not become a parent. I go further to argue that this uncertainty and the demands of ART treatment precipitate an opportunity for couples to reframe their lives and redirect their life goals.

The couples emphasized their personal bodily health status as an important indicator as to when and whether they continued the treatment. The interview quotes reflect their medical discourse between TCM and Western ART treatment. They believe that TCM is for the purpose of *tiao lik shen ti* (regulating the state of the body), *bu shen* (building up health) and curing infertility. The couples talked about using special Chinese food, *tiao lik shen ti* and *bu shen*, in particular, before and after ART treatment. For some couples TCM was used either as an adjunct or as a default alternative therapy when ART failed. This reflects the traditional cultural beliefs that food is specific to health maintenance (Koo 1989). The couples used TCM as a way of taking control of their treatment. Within the clinic, the participant couples were reserved in talking about their use of TCM with the ART practitioner except during history taking. The couples had been advised not to use both systems at the same time, as the drugs used in ART may not be compatible with Chinese herbal medicine. My analysis shows that the couples focused on body, mind and spirit when they were addressing the impact of ART treatment. Their perceptions of health were in physical, emotional and spiritual terms. By engaging in TCM treatment, they were taking control of their treatment. Findings concur with studies on cancer patients in which dietary intervention reduces feelings of helplessness, enhances feelings of control and facilitates patients' psychological health (Holm 1990).

The couples brought up their spiritual or religious beliefs while dealing with ART treatment. Some of the participants became philosophical or spiritual. They compared themselves with people who were worse off and consoled themselves with the thought that it might have been worse. As Alec stated: "my infertility is not comparable to someone who is physically or mentally handicapped". Personal, cultural or religious beliefs were reawakened. For Fiona and Craig, Tina and Steve with Christian beliefs, their faith helped them to accept the situation. They stated that "it is meant to be" and "it is God's plan". As Latifnelad et al. (2008) highlight religion and spiritual beliefs provide a positive frame of reference for the individual to reappraise their infertility and to accept infertility as part of God's plan. The couples that believed in Buddhism took on a different meaning for suffering. Buddhists consider stress as a form of *dukkah* (*Sanskrit, duhkha* or suffering), an

inevitable form of human existence. Within this mindset, these couples chose not to hold on to the outcome but to let go if everything had been done. All the participants felt that they had done whatever they could with no regret. After they had committed to everything and the results were still negative, then they were willing to accept it as part of life. They referred to *tien yee* or Heaven's will, in the other words, they accepted their fate of being childless. The couples contemplated that if they continued to struggle, they would bring suffering. The findings concur with Lee et al.'s (2009) study where infertile Chinese couples that were unsuccessful in ART treatment engaged in both Buddhist and Taoist traditions to surrender their desire to the highest power. The Confucian viewpoint of self-actualization engaged the couples to search and find ways of dealing with their infertility problems. This was reflected in their participation in ART treatment as doing something rather than doing nothing. Therefore, they were committed to and focused on their treatment, and if they still failed in the end, they would accept this as part of their fate. This acceptance was not passive but rather a spiritual reflection that enabled the couples to reframe infertility and to reconstruct their meaning of life by relinquishing their attachment to their desire to have children. The findings also concur with Latifnejad et al. (2008) in that religion and spiritual beliefs could actually empower an individual to accept infertility. Caution needs to be taken here as this applies to couples who were willing to undergo treatment and willing to be interviewed. Those who refused to be interviewed might have had a different view on how their spiritual faiths affected their perception of their infertility and ART treatment outcomes.

In general, the impact of ART treatment drew the couples closer and generated a more positive relationship. It has been suggested that going through the treatment process can be beneficial for couples as they have a common goal and their shared experience of stress, loss and disappointment can also create feelings of cohesion in their marital relationship (Peterson et al. 2003; Sydsjö et al. 2005). As Repokari et al. (2007) comment, infertility and its treatment may enhance personal growth, facilitate the use of resources and strengthen marital relationships. However, there were some participants who raised doubts and uncertainty about whether their spouse (who was not the cause of the infertility problem) would truly and willingly accept the reality

of childlessness in their married life.

The Hong Kong Chinese couples' reluctance to accept adoption was evident from their interview quotes. This may reflect the traditional Chinese kinship preference towards genetic ties (Lee & Chu 2001; Chu & Yu 2009). Among the fifteen couples, there was only one couple that was willing to proceed and accept adoption. In saying that, this couple demonstrated a contemporary attitude towards adopting children. The majority of couples preferred to be childless rather than adopt. One possible explanation is the preference for a healthy child. Most couples worry about bringing up an adopted child who may have a mental or physical disability. If they plan to go for adoption, they prefer to choose from their own brother or sisters or from a family whose members have no known illness. Another possible explanation is the high cost of bringing up children, as the majority of Hong Kong residents place the financial factor as one of the major considerations in childrearing (Family Planning Association of Hong Kong 2007). They have to pay for private nursery costs or employ a live-in maid for childcare.

The positive dimension of hope enabled the couples to deal with the ambiguity and uncertainty posed by ART treatment. All the participants were undergoing their first treatment cycle when first interviewed. The provision of infertility treatment to married couples by the Hong Kong Health Authority is to have three cycles of treatment unless the doctors otherwise suggest. Therefore, they were hopeful of being able to carry on with their treatment. In reviewing the interview data, the theme *Embracing hope* captures the essence of the couples' interpretation of hope with regard to ART treatment. They did hope that ultimately ART treatment would help them to achieve conception. However, some couples felt that even if a child was not the outcome, they would still gain resolution over their infertility by at least having tried all available means, making it easier for them to let go and move on. Hope takes on a different meaning when accepting the final outcome with no regrets. This narrative is also discussed by Kalbian (2005 p.106) who suggests that "it is a different kind of hope that allows for options other than conceiving a baby." Hope can enable the couple to be optimistic and willing to cope with the stressful and

unpredictable demands imposed by the treatment. Yet hope can also be disabling by delaying the couple in facing the reality of failure and accepting alternative options (Sandelowski 1991).

To conclude, the couples' experience of ART treatment added to their own understanding of their infertility problems and the reality of their treatment outcomes. In the next chapter, I summarise the main contributions of this thesis, evaluate the study, discuss its impact on clinical practice and theoretical and research contributions, as well as make suggestions for future research on fertility treatments.

Chapter 8

Conclusion & Recommendations

Introduction

The aim of this study has been to explore the experience of Chinese couples that have undergone Assisted Reproductive Technology (ART) treatment. I have examined the couples' reactions to their infertility problems, their intentions for parenthood and reasons for pursuing ART treatment. Their narratives reflect the physical and emotional demands of the treatment and their engagement in using cognitive, affective and behavioural strategies to cope with the process. Their reactions to their unsuccessful outcomes have been described and their ways of implementing coping strategies to deal with their loss have been identified. Finally, the meaning which the couple attached to their experiences of ART treatment has unfolded. The meaning reflects how the couples made sense of the treatment in relation to its success or failure, as well as the impact of treatment on their relationships and the way they reframed infertility and their reproductive choices.

In this final chapter of the thesis, I will discuss the major themes that have emerged from this study and describe the changing horizons for the couples and myself after the research process. I will discuss the contributions and recommendations that this study has developed for the areas of clinical practice and nursing education. I will also explore the limitations of this study and identify possible future research and I will end by giving my personal reflections on conducting this study.

8.1 Conclusion

Uncertainty posed by infertility

The study focuses on the couples' experience of one cycle of ART treatment. This thesis begins by exploring the Chinese couples' reactions to their infertility problems.

The theme *uncertainty posed by infertility* captures the essence of their experience in relation to their infertility and its treatment. Some couples took it for granted that they would have children as and when they choose (Sandelowski 1991). All the couples underwent different fertility investigations and non-invasive treatment (see Table 4.1, p.87) before they embarked on ART treatment. They were aware of their difficulty in achieving conception and accepted ART as a means to solving their fertility problem. The findings illustrate that these couples experienced uncertainty during the course of their infertility treatment due to not knowing whether or when they would be able to conceive their own child. ART treatment may or may not help them to do so because a successful outcome is not guaranteed. For some couples, their initial taken-for-granted perception of conception after marriage was challenged because they did not know about their fertility problem as they were using contraception. While they were uncertain whether they would be able to achieve conception, they felt a loss of control regarding their own reproductive choices and had to rely on medical help. Therefore, the reproductive functioning of their own bodies was called into question. Their pursuit of ART treatment provided some couples with a means of regaining some control as they could actively engage themselves in seeking treatment. The uncertainty of the ART treatment outcome caused the couples anxiety and ambiguity to the couples (Beaurepaire et al. 1994; Chen et al. 2004; Raphael-Leff 2005; Schmidt 2010). When the outcome of treatment was unsuccessful, they were uncertain whether they would be able to face the reality of a childless marriage. The findings also illustrate how both men and women felt a threat to their gender role expectation. Some wives feared that they would lose the femininity of their potential role of mothering and some men felt a loss of masculinity (see paragraph below). The uncertainty of infertility also led the couples to blame themselves for their past acts of abortion and some perceived infertility as a punishment. The findings were similarly with Sewpaul's (1999) study in which infertility was inferred as a punishment for wrongdoing. Some of the participants became philosophical or spiritual. They compared themselves with people who were worse off and consoled themselves with the thought that it might have been worse. Religious and spiritual beliefs were reawakened when the participants were confronted with infertility (Weaver et al, 2003; Latifnejad et al. 2008).

The stigma of infertility is socially constructed (Remennick 2000; Riessman 2000; Inhorn 2003) and how the couples perceive the impact of infertility changes over time. The couples reacted with anger, resentment and uncertain during the initial stage of their problem (Mason 1993; Webb & Daniluk 1999; Gonzalez 2000). The impact of infertility affects both men and women's sense of control and self-identity. The findings support similar studies, such as those of Lee & Kuo (2000), Lee & Chu (2001) and Throsby & Gill (2004), in which it is suggested that infertility can affect men's sexuality and sense of manhood. For Chinese women, it can affect their potential mothering role in nurturing and caring (Lee & Kuo 2000; Chan et al. 2006). In Chapter 4, I explored the meaning of the couples in becoming parents. I argued that under the new 'One Country, Two Systems' social structure, the traditional Confucian filial obligation doctrine has not been taken as seriously as before. The Chinese and Western cultural mix and economic factors have changed Hong Kong Chinese couples' views about the meaning of parenting. The findings show that the couples' perceptions of procreation are more a personal achievement, that they wanted a child for their own reasons rather than to fulfil the traditional filial obligation. My findings also show how the traditional social expectation of women as '*xiang fu jiao zi*' (see Chapter 4, section 4.2) affected some women's perception of their infertility. This social attitude has changed since more women have entered the work force and become financially independent. However, there are some women who still hold the beliefs that the woman's role is for childbearing. Researchers have identified that the conflict between mothers-in-law and daughters-in-law has affected the postnatal emotional adjustment in women (Barrows & Barrows, 2002; Chan et al. 2002; Chandran et al. 2002; Lee et al. 2004). My findings show that the perception of pressure from the mothers-in-law has also lessened, probably due to the decrease in parental co-residency with the couples. This study also supports Yan's (2003) work in Mainland China which shows how filial obligation has lessened its effect as state policy on population control has changed. Couples now focus more on their financial capability of bringing up a family as the criterion for childbearing. The data also demonstrates that the couples perceived infertility as their own personal problem and did not necessarily share this with their parents and friends. However, caution needs

to be exercised as the traditional view on Confucian filial obligation still has a hold, particularly over men who have infertility problems. The findings of this study, in general, do not concur with other Taiwanese studies (Lee & Kuo 2000; Lee & Sun 2000; Lee & Chu 2001; Lee et al. 2001) in which the traditional view of men and women in the role of reproduction is still highly emphasized. I argue that the socio-political structure of post colony Hong Kong has changed the traditional view on procreation and this study highlights couples' contemporary views on procreation.

Normalizing the ART treatment process

The second theme, *Normalizing the ART treatment process*, encapsulates how the couples endured the inconveniences caused by the treatment. In Chapter 5, I describe how the couples trivialized the medical procedures and how they endured the physical and emotional demands of the treatment. In doing so, the Chinese couples placed their faith in the doctors. I argue that this enabled the couples to shift their responsibility and blame onto the doctor, so that if the treatment did not work out it would not be the couple's fault.

In order to normalize the process, the couples engaged in cognitive, affective and behavioural strategies to cope with it. When implementing cognitive strategies, the couples wanted to access information with which to make decisions and gain some control over what can be a de-humanizing treatment process (see Chapter 5). The findings show that the information given was non-specific and that the couples needed to be proactive in asking for clarity and explanation. Several couples also indicated their use of internet sources to find answers or to search for other treatments. The findings indicate that good quality, evidence-based information is required to enable the couples take part in decision-making (Thornton, 2001).

When using affective strategies, the Chinese couples did not show their emotions openly, although the degree of emotional expression varied between couples. The findings demonstrate that the couples comforted and supported each other to overcome the anxiety and uncertainty posed by the treatment. As with other studies,

the husbands were the major source of support to their wives (Tsang et al. 2000; Chang & Mu, 2008). As for the husbands, the main source of support was from their wives. In addition, the couples also sought support from the infertility health care team. Couples did not expect emotional sharing but rather awareness from the nurses and physicians through being physically present and emotionally aware of the patients (Allan 2002, 2009). My findings are similar to others in which the couples highlighted the supportive activities from infertility nurses through information giving, interpreting, supporting and advocating (Payne & Goedeke, 2007).

When applying behavioural strategies, the Chinese couples engaged themselves in changing their life styles through observance and restriction of certain food, reduced mobility to promote rest and the use of TCM to improve sperm quality (see Chapter 6, p.146-148). Their health beliefs about the balance of *yin and yang*, *qi* and *wu-hsing* (see Chapter 2, p.43-46) reflect their cultural philosophical belief in TCM. However, it would be over simplistic to assume that all Chinese couples deploy all these strategies when coping with the treatment, much depends on the individual couple's needs and preferences.

Dealing with the loss

The theme, *Dealing with the loss*, highlights the couples' emotional responses to their first ART treatment outcomes. The findings highlight how the couples expressed loss in a way that mimics the grief reaction to miscarriage (Johansson & Berg 2005). Women experienced very painful periods which were similar to the pain experienced during miscarriage (Bansen & Stevens 1992). The findings also concur with Beutel et al. (1996), Johnson & Puddifoot (1996) and Beutel et al.'s (1998) studies in which men avoided expressing their grief reaction and were less likely to talk about it with other people. In dealing with their loss, the couples deployed the spiritual and philosophical beliefs of Confucianism, Taoism and Buddhism. In Chapter 2, I outlined the spiritual and philosophical underpinning of these approaches. In *Dealing with the loss*, the term 'fatalistic voluntarism' (see Chapter 6, p.186) was used to describe a way of dealing with the outcome. I argue that their

spiritual beliefs engendered couples to cope with their loss (see Chapter 7, p.222-223). Chinese spiritual beliefs enabled some couples to endure and accept the unsuccessful outcome.

Making sense of the treatment

This theme reflects the couples' insight into their experience of ART treatment. The meaning of success was interpreted in terms of embarking on this ART journey in which each step of success in the treatment brought them closer to their desired goal for a child. Researchers have argued over the most relevant standard with which to judge the success in assisted reproduction (Heijnen et al. 2004; Messinis & Domali 2004; Min et al. 2004) and others have criticized the problems and difficulty in interpreting the success rate between consumers and ART treatment providers (Peter et al. 2007). The findings indicate that the couples' interpretation of ART success is a baby to take home, as the clinic doctors informed them about the take-home baby rate rather than the successful pregnancy rate. After the treatment, the couples experienced an increased awareness of the risks associated with ART and a better understanding of its complexities. The couples also talked about the issue of control. The findings support Redshaw et al.'s study (2007) in which the participants felt a lack of control during the treatment process. My study also illustrates how pragmatic the health behaviour of Hong Kong Chinese couples is in the context of the coexistence of Western and TCM treatment. In relation to the couples' relationships, in general, ART treatment brought them closer together, although caution is needed here as these couples were self-selected and it could be different for couples who chose not to participate in this study. Going through ART treatment also brought hope. In Chapter 7, pp.216-219, I argue that hope takes on different meanings for the couples in that ART treatment brings the hope of achieving conception as well as helping them gain resolution around their infertility when treatment fails. The findings also indicate that the spiritual and religious beliefs of Buddhism, Taoism and Christianity (see Chapter 2) influenced how the couples dealt with the uncertainty and ambiguity posed by the treatment. Some couples learnt to let go of their suffering (demanding to have a child) and accept what was meant to be. The couples perceived

that doing something was better than doing nothing (i.e. having ART was better than no treatment). This thesis concurs with Latifnejad et al.'s (2008) findings which suggest that religious and spiritual beliefs provide a positive frame of reference for a person to cope with treatment and reframe their reproductive choices.

8.2 Contribution and recommendations

This is the first phenomenological study on Hong Kong Chinese couples having ART treatment. The thesis provides a major contribution to the understanding of Hong Kong Chinese couples' insight into their experience of ART treatment and how they make sense of the treatment. The findings highlight how infertility is socially constructed and varies with time. Previous research has centred on the importance of filial piety in childbearing for men and women (Lee & Kuo 2000; Lee & Chu 2001; Lee & Sun 2000; Lee et al. 2001; Chang & Mu 2008). This thesis adds knowledge to the contemporary view of Hong Kong couples regarding their infertility and their desire to pursue parenthood. I argue that the influence of traditional Confucian filial piety has lessened and some Chinese couples now pursue parenthood for more personal reasons. Previously the influence of the in-laws has played a significant part in relation to the marital stress of infertile couples' (Lee & Son 2000). This thesis highlights how the in laws interfered less in the couples' private lives, including their reproductive choices. The findings support Yan's (2003) comments on how individual rights and the changing status of children have gradually changed the traditional culture of filial piety.

This study also raises the existential meaning of time in infertility and ART treatment. The wives talked about their biological clock (see Chapter 4, section 4.5) in terms of their biological reproductive capacity; the husbands also discussed their biological clock with regard to becoming a father and expressed their concern about leaving fatherhood until a later stage in life. This thesis contributes new knowledge on both husbands' and wives' reflections, regarding how time changed how they reacted to and perceived infertility and ART treatment. During the ART treatment, the couples highlighted the challenges of waiting for their results and waiting to

become parents or not. The findings support Allan's (2009) work which claims that the British ART clinic provides a place for couples to manage their uncertainty and ambiguity towards treatment. The couples tolerated the uncertainty and ambiguity imposed by the treatment but felt in limbo, that is, between getting to become or not become a parent. The thesis illustrates how the uncertainty and demands of ART treatment created an opportunity for the couples to reframe infertility and their life goals (see also Chapter 7, p.222-223). The couples were in their first cycle of treatment and the findings reflect this specific group response since they still had the chance to continue their treatment and therefore the theme of hope is presented as well, despite their experience of loss.

ART treatment may be a means of achieving conception and couples regard this as a technological medical intervention to resolve infertility problems. The findings concur with others that ART is physically and emotionally demanding (Sherwin 2000; Allan 2001; Benjamin & Ha'eiyon 2002; Boivin & Schmidt 2005; Peterson et al. 2009). The coping styles used by the couples also reflect their cultural and spiritual assumptions. The outcome of ART treatment is predominantly unsuccessful (see Chapter 6). This thesis contributes new knowledge in that the couples experienced loss even earlier on with their ART treatment. It highlights the sense of loss actual and foreboding – the sense of anticipation for the failed pregnancy and foreboding of social loss in terms of social exclusion from family activities i.e. at Chinese New Year. The couples experienced a sense of the actual loss of bodily functions in conception and this loss mimics that of miscarriage (Bansen & Stevens 1992). In addition, husbands experienced loss, not only infertile husbands but those whose partners were infertile. The men also experienced disappointment and emotion. This thesis contributes knowledge regarding both women and men, in particular how men, as a part of a couple experienced their loss during this treatment. For some couples, their spiritual beliefs were evident in helping them to preserve and accept the negative outcome. Latifnejad et al. (2008) state that religion and spiritual beliefs help couples to adjust to the uncertainty of infertility and the complexities of ART treatment. I hope that this thesis will help to fill the gap in the literature where previously, discussion of spiritual support used by Chinese infertile couples dealing

with ART treatment has been lacking.

In the literature review, numerous studies are cited which indicate the difficulties in recruiting men for infertility research studies (Chan et al. 2006; Glover et al. 2009; Lee et al. 2009). This study makes a major contribution given that both husbands and wives took part in the interview process and that the Chinese men openly and willingly talked about their experiences. This research facilitates the voice of men to be heard and made known to others. I argue that the interview process enables men to engage in dialogue and gives them an opportunity to say what they have experienced. The findings from the study add to the understanding of men and women's perspectives as well as couples' perspectives of this treatment.

Recommendations for clinical practice

In the area of clinical practice, nurses need to identify the specific needs of infertile couples. This study uses a phenomenological approach to examine the experience of the men and women having ART treatment. The findings identify the reactions of both parts of the couple. While the woman is usually the focus of infertility research, this study adds knowledge from studying men's reactions to infertility treatment. As a result, health care providers will be better able to understand couples' specific needs, to offer support and deliver interventions that are meaningful and holistic for each individual couple.

The findings indicate areas for improvement in relation to information giving. The information given should be specific and tailored to each individual couple. The research supports the view that ART treatment is physically and emotionally demanding. The couples experienced anxiety, stress and uncertainty, in particular, during the waiting period. The data indicates that participants would benefit from more specific and detailed information about the treatment process, the effects of the medication and the course of the treatment. For many patients, this information is most effective when updated at each clinic appointment. Participants also suggest that reading materials to supplement the information seminar could be made

available, which they could refer to when in doubt. It is also vital for fertility nurses to be fully aware and prepared with up-to-date and appropriate knowledge, not only of the latest treatment regimes and practices in ART, but also of the current experiences of patients undergoing treatment. As a result of this, couples would receive relevant, appropriate advice and guidance during their course of treatments.

The findings also highlight how infertility is a shared problem, not an individual one. Healthcare providers should take into account the different communication patterns between men and women while providing infertility care for couples (Glover et al. 2009). For Chinese couples, health care providers may encourage the couple to have open discussion between themselves and with their family members if they would like the supportive of their spouses and families. As Slade et al. (2007) indicate, perceived social support was associated with a lower level of anxiety, depression and overall infertility distress among men and women who attended the infertility clinic. Most couples move through the experience at different paces and clinicians should encourage them to be aware of each partner's current pace along the trajectory.

The findings indicate that there are differences in response to an unsuccessful outcome. For some couples, their open communication and own support systems helped them to cope with their loss. Others, who had kept their infertility and treatment secret, would have benefitted from support from health care providers. There are a minority of men or women who might need psychosocial counselling in relation to unsuccessful outcomes or termination of the treatment. Healthcare providers should be aware of couples' needs and appropriate emotional and psychosocial support should be given as required.

The findings also demonstrate the pragmatic health beliefs of Hong Kong Chinese couples. Nearly all the participants used some form of TCM before or after the ART treatment. The co-existence of Chinese and Western medicine warrants attention from healthcare professionals so that there is more integration towards the common goal. It is important for both couples and healthcare providers to have an open dialogue. Couples should be given information and evidence of the differences

between Chinese and Western medical approaches to infertility treatment. Thereby, couples can be informed and encouraged to make their own choices.

In relation to the ideology of patient-centred care (Department of Health 2010), the results of this study provide a base of knowledge that is grounded in the couples' experiences. By understanding the perspectives of both husbands and wives, health care providers will be able to provide infertility care that is couple-centred.

The thesis reviews the gendered aspects of the ART treatment experience. The findings show that both men and women have their own emotional response to infertility and ART treatment. The literature highlights the gendered differences in coping styles and the thesis demonstrates the co-existence of gender. In clinical practice, the infertility healthcare team should be encouraged not to make gendered assumptions but rather to establish open dialogue with couples. Each couple has their own social and cultural background. This thesis highlights the influence of Chinese philosophy on the way couples adjust to the stressful and uncertain nature of ART treatment. Recent work conducted by Chan et al. (2006) highlights the benefits of psychosocial counselling based on Eastern philosophy during treatment outcomes. The findings demonstrate the individual couple's needs in response to the treatment, and healthcare professionals should assess for and advise on appropriate psychosocial counselling at the right time for each couple. It is important to avoid gender based stereotyping or any stereotyping of couples and to emphasize that the dynamic of the couple's relationship plays an important part in helping them throughout the treatment process.

Recommendations for nursing education

Nursing education can be developed to increase the number of nurses caring for infertile couples. This thesis provides evidence from the couples' perspective of their experience of professional support during ART treatment and illustrates the importance of the supportive role played by infertility nurses. 'Being with' and 'being there' is welcomed by the couples. They also highlight how being infertile

itself is such a disappointment that coming to the clinic with a warm, welcoming and supportive atmosphere is of paramount importance. Infertility still holds an element of shame and guilt (Qiu 2001) and it can feel very uncomfortable if the health care professionals are not supportive and respectful. The knowledge of caring for infertile couples should be implemented in both pre-registration and post-registration nursing programmes as well as midwifery programmes in the United Kingdom, since the majority of infertility nurses have midwifery training as well as adult nursing training. It is also important to ascertain the different learning needs of pre-registration and post registration students so that appropriate ways to deliver the teaching content to these students may be found. In Hong Kong, nursing education follows a similar pattern to the UK with pre- and post-registration nursing students. In teaching infertility to nurses and midwives, it would be beneficial to highlight the specific needs of couples and their different cultural needs in terms of coping with the treatment. Assessment should be made as to whether they need referral for infertility counselling. Nurses should work in line with the multidisciplinary infertility team. Counselling skills training also needs to be developed in view of the 'emotional labour' element of infertility nursing (Allan 2009). Not only should nurse education and training focus on the latest treatment regimes and practices in Assisted Reproductive Technology, but also show awareness of current patients' experiences. This research affirms Allan's (2005, 2007, 2009) work on the developing role of infertility nurses. She challenges the difficulty of advanced nursing practice in which the elements of nurturing, observational skills and caring may be difficult, if not impossible, to maintain (Allan 2009). The future of nursing education should focus on the value of caring and working with emotions rather than emotional closeness (Allan 2009 p.151). This will enhance the provision of couple-centred care and appropriate support for couples.

Emphasising gender awareness

The study demonstrates how both women and men have their own emotional response to infertility and ART treatment. Women might be expressive of their emotional needs. Given the environment and opportunity, men are also able to

express their emotions. Understanding this would increase health care providers' awareness of gender needs and of not making gendered assumptions. The words 'emphasising gender awareness' did not appear in the transcripts. It was a crystallization or transformation from multiple themes that ran through the participants' descriptions of their experiences of infertility and ART treatment. Gender awareness is the awareness of how men and women face, respond to and experience life events. It is about being mindfully present in the other gender world. There is a pre-condition or a catalyst for gender awareness to be present. When this awareness is translated into the action of understanding and being understood, both genders experience an inter-subjective connectedness. It is episodic and may occur briefly, yet its power lies in the potential to bring about positive growth for those who are involved. The interpretation of this awareness would help health care providers find a new way of understanding the experience and free us from pre-existing suppositions that infertility has more impact on women. Emphasising gender awareness in nursing education will engage both the health care professionals and couples in dialogue to minimise gender stereotyping and assumptions.

8.3 Future research

In any research study there are always limits to what the researchers can answer and these open up potential areas for future research. In this study, I do not claim to provide all the answers to the couples' experiences of ART treatment. Instead I present an in-depth account within which the phenomenon of having ART treatment can be contextualised in personal, social and cultural dimensions. All my participants constructed their experiences of ART treatment through prolonged engagement with me during the series of interviews, although it is always possible that what they reported was not an accurate portrayal of their experience. It is about their perceptions of experiences with staff in the clinic as a whole therefore, it is not relevant whether it is accurate or not. However, my experience as a researcher shows that there was a willingness and genuine dialogue between the participants (men and women) and me to share their story. I believe the themes of this study are an accurate portrayal of the participants lived experience. Hopefully the work will provide a

channel through which the perspectives of couples are understood by professionals and potential couples choosing ART.

Through a better understanding of couples undergoing ART treatment, future research may be stimulated and couple-centred infertility care provided. In the following section, I identify some of the potential areas for further research, some of which are related to specific areas in care perspectives, while others reflect identified themes such as the spiritual dimension when dealing with loss. The HFEA (2010) emphasises the importance of information and psychosocial counselling provision for infertile couples embarking on ART treatment. Before delivering the care service to couples, it is important to know what exactly is needed and at what point in time support from professionals is required.

Understanding the gendered aspect of care

In contrast with common beliefs, my findings show that Chinese male participants do have an emotional response towards infertility and ART treatment and they do express their feelings. However, the men's perspectives will differ in some respects, as the majority of treatment is done on the woman's body, regardless of whether the infertility problem lies with the woman or the man. Therefore, different assumptions and expectations are placed upon men and women with regard to their response to treatment. Further research is needed in order to understand if or how men's construction of success differs from that of women. The questions that need to be addressed include the following: How do men experience and understand the impact of ART treatment? Is their orientation towards a successful outcome different from women's? Do they consider that the care which is provided addresses their needs? If not, what are the areas that need to be improved?

Understanding spiritual dimensions in ART treatment

My study has demonstrated some insights to the spiritual dimensions of the couples when responding to their loss and disappointment in ART treatment. The findings

concur with Latifnejad et al. (2008) in that religion and spiritual beliefs could actually empower an individual to accept infertility. A more in-depth analysis of spiritual beliefs among infertile couples is needed to examine how their spirituality does or does not enhance their ways of accepting infertility and the treatment outcome. Questions to be addressed could include: How do the couples perceive their spiritual beliefs in relation to their infertility and ART treatment? How are the major religious traditions responding to developments in ART? What elements of spiritual support or resources do the couples need to deal with their infertility and ART treatment?

Understanding Hong Kong Chinese family perspectives in ART treatment

Although there is an abundant body of written work looking at the psychosocial dimension of the impact of infertility on men and women, there is a dearth of literature exploring the family response to ART treatment. My study indicates that family members do not know how to respond to the loss that couples experience. Additional research is needed to examine the views of family members and their role in supporting couples. How does the family respond to the couple's infertility? What do they expect ART treatment to achieve? What degree of influence do they have and how would they support their family members having ART treatment?

Understanding the care providers' view in ART treatment

There have been studies exploring the relationship between doctors and patients in infertility treatment and in particular the relative power between the medics and recipients (Becker & Nachtigall 1991; Franklin 1997). There is a need to explore in more depth individual doctors' and infertility nurses' perceptions and experiences of their own understanding of ART treatment. How do the healthcare professionals perceive their relationships with patients undergoing ART treatment? What is their understanding and interpretation of success and failure in ART treatment? Further studies that examine this would be fruitful in bridging the power gap between professionals and patients, so that the couples' needs are addressed.

Understanding of culturally specific care in ART treatment

My study has focused on Hong Kong Chinese couples and their contemporary views on infertility and ART treatment. The findings indicate that childbearing attitudes have been reshaped and taken to a more personal level. Hesketh et al. (2005) claimed that the effect of China's policy has brought potential threat to social stability in relation to population growth, especially the imbalance of male and female ratio and increasing ratio of elderly dependents. How does the One Child policy affect views on infertility care provision? Further research using the same criteria should be undertaken on couples in Mainland China to explore their understanding of infertility and ART treatment. This would enhance understanding around the provision of culturally specific care for couples.

Understanding of Western medicine and TCM in infertility treatment

In Chapter 2, I described the pragmatic health beliefs of the Hong Kong Chinese towards Western medicine and TCM in relation to health and illness. The findings indicate that the participants used TCM health concepts to improve their health status before or after ART treatment. Further research is needed to examine participants' and physicians' attitudes towards using herbal TCM as a complementary treatment for infertility. The potential of this research would add a new understanding of the co-existence of Chinese and Western medicine in dealing with infertility.

8.4 Personal reflections

At the beginning of the research process, I struggled with the idea that I might have difficulty in conducting interviews, as Chinese people are relatively reserved about their private lives. I found it difficult to accept that I would not be able to use my clinical skills and knowledge to support the couples to overcome the physical and emotional demands of the treatment. I worried about my ability to hear what the couples had to say, if it conflicted with my understanding of the treatment process. While I was conducting the research, I wanted to provide information and support to

allay their anxiety and uncertainty. In my initial interviews, I had a difficult time separating my professional desire to help the couples with the challenges I knew they faced during the process and my personal role as a nurse researcher.

The data collection was then interrupted by my personal family loss and for some time, I found it too difficult to interview the couples. Confronted with their dynamic around support or lack of support appeared far too difficult for me to cope with during that period. With support from my supervisors, I stopped the interview process for six months to give myself time for healing.

My own clinical suppositions also changed as the research process continued. My supervisor reminded me that I had made assumptions that treatment always benefitted couples. From a professional viewpoint, I thought that ART brought hope and opportunity, but as I walked this research journey with the couples, gradually I came to realize and agree with the anthropologist Sarah Franklin's (1997) comment that ART is a choice, yet not a choice. The research helped me to understand the uncertainty and complexity of ART treatment for the couples and how they responded to the loss and emotional roller coaster of hope and disappointment. This helped me to see things from their perspective.

After completing my interviews and seeking to understand the lived experience of the infertile couples going through ART treatment, I became aware of my own difficulty in thinking about their world. I repeatedly had to ask myself. "What did the couple say about their world with this experience?" Initially, I examined the data set from my clinical viewpoint instead of totally immersing myself in the data and letting it guide my understanding. My visits to my supervisors helped to serve this goal as they constantly reminded me to "let the data speak!" Once I was able to do this, it was fascinating to see the themes emerge and to understand the couples lived experiences. To identify the theme 'adjustments' and 'making sense of ART treatment' was intriguing and both thematic structures appear to have implications for nursing practice and research. I remember one supervisor challenging me by suggesting that it was not only about couples coping or not coping, it was more about

how they went through their experience of the treatment. Another supervisor also challenged me by saying that I was being uncritical about ART treatment and seemed to assume that it was always positive for the couples. Her remarks helped me to be reflective in analysis as well as in writing.

Throughout Chapter 7, I showed how the couples made sense of their ART experiences and constructed, from their reality, varying beliefs about how ART treatment would solve their fertility problems. The essence of the couples' experience was their desire to have their own child as a result of the treatment. This essence revealed itself differently with different couples. Fourteen of the fifteen couples experienced failure and their understanding of ART brought them to different life perspectives. As the couples' experiences changed as the treatment progressed, so did I. I too experienced a different worldview that was from the patients' view about how infertility and ART affected their lived experiences.

I have been privileged by the couples' willingness to authentically share their experiences about their intimacy and struggles to have a baby. Ten months after my data collection, I was deeply moved when I received an email from Samantha and Tim. They wrote: "Annie, here is our baby daughter Emily (pseudonym), she weighs 3.2 kg and is healthy." They attached a picture of baby Emily taken in the labour ward. I felt so happy for them, they are among the few who have successfully given birth to a healthy baby after ART treatment. The interview process created a space in which we all developed a sense of connectedness and where we were happy to share their ultimate success.

Phenomenological research has affected the way I teach and practice nursing. My focus with patients is now on understanding their perspectives and their meanings of experience. As a midwife, I have learnt about 'being with' rather than 'doing for' in my clinical practice. In my teaching, I have learnt to connect with the students and ask them questions like: 'What was your experience of your work based learning?' instead of 'What have you learnt in your work placement?' Phenomenology has challenged my taken for granted knowledge and changed me to adopt a more

humanistic approach.

Conclusion

In conclusion, the analysis presented in this thesis provides a deeper understanding of Chinese couples' reactions to infertility and their experiences of undergoing Assisted Reproductive Technology treatment. Most previous research studies have not addressed the difficulty of recruiting male participants and consequently limited the scope of their findings. This research achieved the goal of recruiting both men and women and their voices on the subject of ART treatment are reviewed in the findings. The use of a phenomenological approach has enabled an exploration of the couples' personal perceptions of infertility for themselves and others. The result of the analysis demonstrates that infertility is a shared reality and that it is shaped within a social, medical and cultural context. ART treatment may provide hope for couples. However, the treatment process also imposes physical and emotional demands and the couples needed to engage with various strategies and adjustments to deal with the process. The impact of ART created a new understanding for the couples towards treatment outcomes, reframing their loss in terms of fate and hope, gender perspectives in relation to relationships and coping, and finally, the reconstruction of infertility after ART treatment within a socio-cultural context.

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APPENDIX 1 THE TREATMENT CYCLE FOR ASSISTED REPRODUCTIVE TECHNOLOGY (ART)

The Treatment Cycle for Assisted Reproductive Technology (ART)

The term ‘assisted reproductive technology’ (ART) is applied to various therapies to improve the chance of conception. ART procedures are highly technological and depend on the source of gametes (wife, husband, egg donor or sperm donor), the site of fertilization (wife, laboratory or surrogate) and the site of gestation (wife, or surrogate). There are various treatments including IVF, ICSI, IUI and GIFT (see Glossary). For the purpose of this study, I focus on *in vitro* fertilization, intracytoplasmic sperm injection (ICSI) and preimplantation genetic diagnosis (PGD), as these are offered to the participants at the ART centre in Hong Kong. A description of the treatment process is given to provide a background understanding of ART treatment.

A. Pre-treatment Stage

Before couples are offered IVF treatment, they must consult with an obstetrician to ascertain their eligibility for treatment. Before treatment starts, the couples are offered the chance to attend an information seminar. During this session, information about the IVF treatment process, success rate and potential complications is given to the couples. They are invited to ask questions during this information seminar. The seminar is conducted by two infertility nurses. Both members of the couple are invited to attend the information seminar before giving consent. After consent is given, both men and women have blood samples taken for blood profile evaluation. The blood samples are taken to screen for Hepatitis B, Rubella and sexually transmitted diseases. The men are requested to submit a semen sample for analysis of sperm count, sperm motility and morphology. For the purpose of this study, I have defined the pre-treatment stage as the time from the first consultation with the infertility specialist to the actual treatment process.

B. Treatment Stage

The actual IVF treatment starts on the 21st day of the menstrual cycle. There are six phases:

Ovulation Induction

During this phase, the woman is prescribed a hormone called Buserelin in the form of a nasal spray. She starts the nasal spray on the 21st day of her menstrual cycle and will self-administer four times a day at six hourly intervals. The purpose of Buserelin spray is to prevent premature ovulation during this period. She continues to use the spray until the follicles mature. On the second day of her menstrual cycle, the woman will come to the ART centre to have another blood sample taken to test the level of oestradiol and to have a vaginal ultrasound scan of her ovaries to detect the presence of ovarian follicles. Timing is crucial in an IVF cycle. The blood test is to measure the response to the ovulation drugs. Usually the oestrogen levels increase as the follicle develops and the progesterone levels are lower until after ovulation. The ultrasound scan is to monitor and evaluate the maturity of the follicles. If the ultrasound scan indicates no follicle present, on the third day of her menstrual cycle, the women will come to the clinic to have daily intramuscular injections of human menopausal gonadotropin (hMG). During this period, the women will have ultrasound scans to determine the maturity of the follicles. When there are at least three follicles with a diameter of greater than 18mm, a single intramuscular injection of human chorionic gonadotropin (hCG) will be given to replace the woman's natural luteal hormone surge and helps the eggs to mature so that they are capable of being fertilized. The eggs are retrieved before ovulation occurs, usually 24 to 36 hours after the hCG injection is given. However, there is a small percentage of cycles that are cancelled prior to hCG injection. This may be due to an inadequate number of follicles developing. Occasionally, the cycle may be cancelled due to the risk of severe ovarian hyperstimulation syndrome (see Glossary).

Egg Retrieval

Egg collection is performed 36 hours after the hCG injection. Egg collection is a surgical procedure and the woman will be given an anaesthetic or analgesics prior to the procedure. With the transvaginal ultrasound imaging, the ovarian follicles can be

assessed and retrieved. Upon retrieval, the fluid from each follicle is examined microscopically for an oocyte, by the embryologist. Each oocyte is transferred to a culture medium immediately and kept in an incubator under carefully controlled conditions.

Semen collection

Sperm sample for the IVF treatment is obtained by masturbation or surgical sperm retrieval. The man is required to produce a semen sample by masturbation either at home (if the couple lives nearby the hospital) or in the public toilet of the ART centre. The sperm sample must be submitted to the laboratory within two hours before the egg collection. The men, who have azoospermia, may need to undergo microsurgical sperm retrieval from the epididymis or through testicular biopsy. The man who requires this surgical procedure will be admitted to the hospital urology unit on the day before the egg collection. The man will undergo general anaesthesia for this procedure. It is not guaranteed that the surgeon will be able to obtain sufficient sperm for fertilization.

Insemination phase

The purpose of the insemination phase is to fertilize the eggs. There are two methods of insemination. The first method involves the harvest of sperms with good motility and morphology from the semen sample to be added to the egg culture by the embryologist. The second method is insemination of the eggs by intracytoplasmic sperm injection (ICSI). This method is used when the semen sperm count is low or sperm quality is poor. ICSI enables infertile men who have few or immotile sperm to fertilize their partner's eggs. ICSI involves direct injection of a solitary sperm into the egg using a micromanipulation technique. Two hours after the egg collection, the eggs are inseminated with the sperm sample under laboratory conditions.

Assessment phase

This is the phase for examining the fertilized ovum. Within 16-20 hours after insemination, the embryologist will detect the presence of two pronuclei in order to confirm fertilization. Once fertilization has been confirmed, the zygotes are cultured *in*

vitro for a further 24-48 hours until the cells divide into the four cell stage of development. Once the cells have divided, the cells are transferred back to the uterus.

Preimplantation genetic diagnosis (PGD) will be performed only for those couples who screen positive for severe genetic disorders. The couples give consent for this procedure. In PGD, one or more cells are removed from the developing embryo and tested for a specific genetic disease. Embryos that do not have the gene associated with the disorder are selected for transfer to the uterus.

Embryo transfer phase

When the fertilized cells have reached the four cell stage of development, the embryos are transferred back to the uterine cavity transcervically, by means of a fine plastic catheter. Under normal circumstances, two or three embryos are transferred. The numbers of embryos transferred are limited to avoid two or more multiple pregnancies. The excess embryos can be frozen for future transfer. The couples will have given consent to store the excess embryos. After the embryo transfer, the women are given luteal support with vaginal progesterone suppositories. These suppositories are self-administered for 14 days or by injections given by the infertility nurse on the day of the embryo transfer and again, six days post transfer.

C. Treatment Outcome Stage

The woman will be given a date which is usually on the 16th day following embryo transfer, to return to the ART centre for a pregnancy test. If the test is negative, the treatment cycle will be repeated within one or two months, or depending on the couple's choice for timing using the frozen embryos. If there are no embryos remaining, a decision regarding the initiation of another treatment cycle will be discussed between the obstetrician and the couple.

APPENDIX 2 INFORMATION SHEET

Information Sheet

To: All participants
From: Ms Annie Lau
Department of Nursing Studies
University of Hong Kong

Re: A study of Chinese women and men undergoing Assisted Reproductive Technology (ART) Treatment

An interview-based study of couples undergoing Assisted Reproductive Technology treatment is being conducted at this ART Centre. The aim of this study is to gain a deeper understanding of Chinese couples' experience of ART treatment. Gaining an understanding of what these couples feel during their ART treatment will enable the centre to provide enhanced quality care.

Your participation (and that of your partner) in this study would be greatly appreciated. You will be invited to attend three interviews conducted in a quiet area of the ART centre or at some other neutral place, at a time convenient to you. You will be asked some questions related to your experience of ART treatment. Each interview will take about one hour of your time.

If you agree, your participation is voluntary and as such you may withdraw from the study at any time. If you choose not to participate, this will not affect the care you receive from the ART centre. If you agree, the interview will be tape-recorded. Recordings may be switched off or stopped at your request. All data will be kept strictly confidential. The findings will be used for academic purposes only.

I have been granted permission from the ethical committee of Faculty of Medicine, University of Hong Kong to conduct this study. You are welcome to clarify any queries you may have with Dr. Ng, Consultant of the ART centre or with me (Tel. No. 2819 2641).

Thank you very much for your consideration.

Yours sincerely

Annie Lau
Principal investigator

有關資料

致:所有的參加者

對接受輔助生育治療之中國女性和男性之調查及其實務的影響之研究

本中心現正進行一項訪談輔助生育夫妻的研究。此次研究的目標是對正在接受輔助生育的中國夫妻獲得更深入的瞭解。該瞭解將有助於本中心能夠進一步提供更高品質的治療。

您(和你的配偶)的參與將會受到高度重視。您們將被邀請參加三次訪談。這些訪談都會在輔助生育中心之安靜的地方或其他合適的地方及在對您方便的時間進行。您將會被問及與您的經歷有關的問題。每次訪談將需要一個小時左右。

如果您同意，您的參與將是自願的，而且您可在任何時間退出本項研究。如您選擇不參與研究，將對您在中心的治療沒有任何影響。經您同意之後，訪談過程會被錄音。如您認為有必要，可隨時停止錄音或關掉錄音機。所有資料將絕對保密。研究結果只作學術研究之用。

本人已從香港大學醫學院道德委員會獲准進行此項研究。如您有任何問題需要進一步澄清，請與輔助生育中心顧問吳醫生或本人聯絡。電話: 28192641

多謝各位的參與。

劉鄭潔玲謹上

APPENDIX 3 WRITTEN CONSENT FORM

A Study of Chinese Women and Men undergoing Assisted Reproductive Technology

Written Consent Form

I _____ (Name of client) hereby consent to participate in the study entitled “A Study of Chinese Women and Men Undergoing Assisted Reproductive Technology (ART) Treatment.”

I have read and understood the information about this study that was given to me. I understand that the purpose of this study is to investigate the couple’s understanding of each other, their relationship to each other, their support for each other and their ability to cope with Assisted Reproductive Technology treatment. I understand that during the study, after I have given my informed consent, I will be invited to participate in three interviews, which will be conducted in a quiet area of the ART centre or in the interview room at the Department of Nursing Studies or at some other neutral place according to my wishes. In this interview, I will be asked questions about my relationship with my partner/spouse while experiencing our ART treatment. I understand that each interview will take about one hour of my time. I understand that the interview will be taped-recorded. I also understand that I may request that the recording be stopped as and when I choose, without this having any effect on my care.

I have been given the opportunity to ask questions about this study and these have been answered to my satisfaction.

I consent to participate in this study and understand that I have the right to withdraw at any time without affecting my further medical care.

All data collected will be kept strictly confidential.

Any information that I provide will not be made public in any form that could reveal my identity to an outside party, that is, I will remain completely anonymous.

The group results of this study will be used for research purposes and may be reported in research journals.

I am free to withdraw this consent at any time during this study, in which event my participation shall cease and any information obtained from me shall not be used.

Should I, at any time, have any questions about the research or my participation in it, I may contact Dr. Chow, as an independent contact person: office tel. 2766 6420

Participant's signature: _____

Participant's name (in capital letters): _____

Investigator's signature: _____

Investigator's name (in capital letters): _____

Witness's signature: _____

Witness's name (in capital letters): _____

Date: _____

End

對接受輔助生育治療之中國女性和男性之調查及其對實務的影響

書面同意

本人_____ (接受治療人姓名)在此同意參加題為『對接受輔助生育治療之中國女性和男性之調查及其對實務的影響』的研究。

本人已閱讀並且理解此項研究所提供的資料。本人明白此項研究的目的是調查夫妻的相互理解、他們相互的關係、給予對方的支持以及他們應付輔助生育治療的能力。本人亦明白在此項研究中，經本人瞭解給予同意之後，本人會被邀請參加三次訪談。這些訪談將在輔助生育中心安靜的地方，或在護理學系訪談室或按本人之意願所選的其他對雙方均合適的地方進行。在訪談中，本人將會被問及在接受輔助生育治療時夫妻間關係的問題。本人明白每次訪談時間將使用本人約一小時的時間。本人亦瞭解每次訪談都會錄音。同時本人亦瞭解本人可在本人要求的地方或時間停止錄音，而不會對本人的治療有任何影響。

本人已有機會對本研究提出問題，並已得到滿意的答覆。

本人同意參加研究並瞭解本人有權隨時退出，而且退出對本人的治療不會有任何的影響。

所有資料將會嚴格保密。

本人所提供的任何資料不會以任何能對外界披露本人身份的形式公開。我的姓名絕不公開。

此調查之總結果將被用於研究，亦可能在研究刊物中報告。

本人可隨時退出此項研究。如退出，本人對此項調查之參與將停止，而且所有從本人獲得的資料將不會被使用。

如果我在研究過程中有任何疑問，我可向獨立聯繫人周博士查詢，電話: 27666420

參與人簽字：_____

參與人姓名：_____ (正楷)

調查人簽字：_____

調查人姓名：_____ (正楷)

見證人簽字：_____

見證人姓名：_____ (正楷)

日期：_____

APPENDIX 4 ETHICAL APPROVAL



May 30, 2002

Dr AKL Lau
Department of Nursing Studies

Dear Dr Lau,

EC 1839-02

I write to inform you that the Ethics Committee has approved, after due consideration, your research protocol entitled "A study of Chinese women and men undergoing assisted reproductive technology (ART) treatment: implications for practice".

Yours sincerely,

(Ms) Fontaine Au
for Secretary
Ethics Committee

c.c. Mr Chris Yip, Secretary, QMH Research Committee

FA/yl
Ethics/copy/9

APPENDIX 5 SEMI-STRUCTURED INTERVIEW GUIDE

Semi-structured Interview Guide:

**** Note these questions are a guideline only will be altered depending on context**

First Interview: (The couple seen together)

How long have you known your partner?

How did you meet?

How would you describe your relationship with your partner and your parents-in-law?

Do you know any family, friends, or other people who have experienced difficulty having children?

What caused you first to be aware that there were difficulties for you or your partner in having children?

Were you able to talk to any family or friends about these difficulties or how you might resolve them?

What make you decide to choose ART treatment?

What are your expectations of ART treatment? Do you believe that ART treatment will help you?

Second Interview: After treatment (Interview the man/woman individually)

How are you feeling now?

Can you tell me what your experience with ART was like?

Probe : How are things going at the moment?

Are you able to talk to anybody about your ART treatment?

Prompt: Who are you able to talk to about your ART treatment? For example : your family or friends or spouse?

Is there anybody who is able to provide support for you while you are having ART treatment? For example : your family or spouse or friends?

Probe : What kind of support have you received?

Is there anybody you would like to be able to talk to about your ART treatment?

Have you noticed any difference in your reactions to the ART treatment between you and your partner/spouse?

Probe: How do you feel, what do you say or do?

Third Interview (After ART treatment: Interview the couple together)

Has ART treatment had any effect on the way that you both relate to each other?

Probe : Can you give me an example?

How are you coping with the ART treatment?

Prompt : Are you receiving the support you need?

How are you responding to each other following your ART treatment?

面談/訪談 問題
第一次(夫妻同時被訪)

1. 您認識配偶有多長時間了?
2. 你們在一起多長時間了?
3. 你們是怎樣認識的?
4. 你和你自己父母的關係以及同岳父/母的關係如何?
5. 你認識不認識任何經歷不能生育問題困擾的家庭或其他人?
6. 是什麼原因最初使你們意識到你或配偶在生育方面有困難?
7. 你們是不是能夠和家人或朋友談論這些困擾?
8. 是什麼原因使你們決定採用輔助生育的方法?
9. 你們對輔助生育治療方法抱有什麼樣的期望?
10. 你們是否相信輔助生育治療能夠幫到你們解除不能生育的困擾?

第二次面談/訪談(在輔助生育方法治療之後)
(與夫妻二人中的一人單獨見面)

1. 你現在的感覺如何?
2. 你對輔助生育治療過程有甚麼感受?
3. 目前的情況怎樣?
4. 你有沒有機會與他人談論輔助生育?
5. 你與誰談論了?家人、或朋友、或配偶?
6. 在你進行輔助生育的時候,有沒有人能夠支持你?比如家人、朋友或配偶?
7. 有沒有什麼人你想同他們談一談有關輔助生育的事?
8. 你有沒有注意到你和配偶對輔助生育有什麼不同的反應?

(二人一起見面)

1. 輔助生育對你們之間相互的關係有沒有任何影響?
2. 這次經歷對你們關係的影響是什麼?
3. 你們是怎樣應付輔助生育療程的?
4. 你是不是得到你所需要的支持?
5. 你是從何處獲得這些支持的?
6. 這種支持是什麼方式?
7. 在輔助生育療程之後你們兩人相互關係有什麼改變?

APPENDIX 6 INTERVIEW COMPLETED

INTERVIEWS COMPLETED

Appendix 6

Number	Name Pseudonym	First Interview (Couple)	Cycle of treatment	Second Interview (Individual)		Third/Final	Comments
				Wife	Husband		
1 *	Alice Bob	23/06/02	1st	13/07/02	13/07/02	13/07/02	Continue treatment with frozen embryos.
2 *	Monica Ian	30/6/02	1st	4/08/02	4/08/02	4/08/02	Once frozen embryos are finished, definitely not going for 2 nd cycle of treatment.
3 *	Betty Mike	7/07/02	1st	25/08/02	25/08/02	05/09/02	Continue treatment with frozen embryos. Very open to talking about the experience.
4	Brenda Creg	14/07/02	1st	-	-	-	Cycle discontinued.
5 *	Carol Jim	20/07/02	1st	2/09/02	2/09/02	8/09/02	Interview at home, willing to share experience. Failed 1 st cycle, continued with treatment with frozen embryos.
6	Cathy Donald	28/07/02	1st	-	-	-	IVF treatment discontinued as there was no sperm from husband.
7	Donna Ewin	4/08/02	1st	-	-	-	Unable to contact for 2 nd interview.
8	Denise Edward	24/08/02	1st	Refused to be interviewed.	Refused to be interviewed.	Refused to be interviewed	Failed the last cycle. Couples did not want to talk about the event.

9	Elaine Frank	8/09/02	1st	8/9/02	2 nd interview was scheduled on 20/12/02. (+ve preg test)		First interview, wife was very anxious about the treatment. Had sent email to express her feelings. 2 nd interview was cancelled as she needed to go back to work after the AN clinic. Would contact her again.
10	Emma Francis	5/10/02	1st	-	-	-	Failed cycle. Preferred not to be contacted for the second cycle.
11	Flora George	13/10/02	3rd	Failed the last cycle. Couple was very disappointed.			Failed the last cycle. Wife refused to talk and George talked over the phone. Telephone notes taken.
12 *	Fiona Craig	13/10/02	1st	16/11/02	23/11/02	23/11/02	First cycle failed; continue with frozen embryos. Interview conducted at home. Couples very willing to share their experience.
13 *	Jody Alec	9/11/02	1st	3/12/02 (Preferred the 2 nd interview on the same date)	3/12/02 (interview conducted at my office)	3/12/02	Egg retrieval, but no sperm obtained. Couple not continuing IVF, will think about IUI by donor at Family Planning Association.
14 *	Susan Brian	10/11/02	1st	22/11/02 (Couples preferred to be interviewed on same day at Central Library)	22/12/02	22/12/02	Interview conducted at Central Library discussion room at Causeway Bay. Couples were willing to share their experience.

15	Helen Jonathan	16/11/02	1st	16/11/02	Refused 2 nd interview	Refused 2 nd interview	Failed 1 st cycle, will continue treatment. Reluctant to participate for second interview.
16 *	Samantha Tim	24/11/02	1st	20/6/03	20/6/03 Interview conducted at MacDonald. Husband first and his wife joined us after work.	20/6/03	Due to SARS, interview postponed. Failed 1 cycle, but +ve preg for frozen embryo. Excellent interview. Sent email Baby delivered. Sent email picture.
17 *	Rose Adrian	15/12/02	1st	10/01/03	10/01/03	10/01/03	Stopped treatment and decided to go for adoption. Visited the couple who have adopted twin babies. Only notes written after the visit. Failed 1st cycle.
18	Kitty Louis	22/12/02		Refused	Refused	Refused	
19 *	Lisa Mark	22/12/02	1st	8/3/03 (interview conducted at clients' home)	8/3/03 (husband joined second part of interview)	8/3/03	Interviewed at client's home. +ve pregnancy test; experienced some bleeding. Pregnancy continued. Couple willing to share their experience.
20 *	Tina Steve	26/01/03	1st	12/3/04	12/03/04	12/03/04	Couple willing to talk about their experience. They had friends who had succeeded with IVF. 2 nd interview with wife. Husband was on business trip. Final interview

							completed when couple started 2 nd cycle in March 04.
21	Jessica Peter	26/2/03			Refused 2 nd interview	Refused 2 nd interview	Husband appeared very dominant during 1 st interview. Wife expressed her emotion. Called for 2 nd interview, couple refused.
22	Nora Paul	3/06/03	1st		Telephone called. Couple preferred to wait for 2 nd cycle to be interviewed.		1 st interview, very positive and willing to share. Failed 1 st cycle, had frozen embryo. Wanted to postpone interview for time being.
23 *	Jane Kelvin	6/02/04	1st		06/02/04	10/02/94	Failed 1 st cycle, husband - azospermia.
24 *	Becky Tony	18/02/04			26/03/04	26/03/04	1 st cycle of treatment, couple have been through IUI at private clinic before QMH for IVF treatment. Interview completed at Causeway Bay library.
25	Sabina Leo	08/03/04	1st				Phone call in April, failed 1 st cycle, unwilling to continue to 2 nd interview, but will continue ART treatment.
26 *	Tracy Victor	12/04/04	1st		25/05/04	05/05/04	Not available to be interviewed on clinic date. Failed 1 st cycle, no sperm retrieved.

27 *	Amy Ben	18/04/04	1st	06/06/04	10/06/04	10/06/04	In 1998, Amy lost her baby when she was 6 months pregnant. The couple were willing to share their experience.
28	Victoria William	22/04/04	1st	15/06/04	15/06/04	15/06/04	Failed 1 st cycle. Couple refused to attend 2 nd interview but willing to talk over phone. Notes taken.

Note:

Between March 2003- June 2003 interviews were stopped due to the SARS epidemic in Hong Kong.

From July to December 2003, interviews were stopped due to personal family crisis.

Interviews resumed in February 2004 and were completed in June 2004.

Numbers with * symbol are the couples who completed all the interviews and were included in the data analysis.

A total of 15 couples completed all the interviews. 15 couples completed face to face interviews and two couples completed face to face for the 1st interview but preferred telephone interviews for the 2nd as their treatment had failed. Two couples did not make contact for the second interview. Two couples failed to complete the 1st cycle as no sperms was retrieved.

APPENDIX 7 BIOGRAPHICAL PROFILES

Biographical Profiles

The following biographical profiles give the age and a brief history of the fifteen couples interviewed. All names are pseudonyms and their occupations are stated generally enough to protect people's identity.

Adrian see Rose
Alec see Jody
<p>Alice, Bob</p> <p>Alice, aged 35, Bob, aged 36. They have been married for 12 years. Alice works in the commercial sector and Bob works in public service. Alice has had one miscarriage and since then has been unable to conceive. They have tried other infertility treatments. This was Alice's first cycle of IVF treatment. Their first cycle failed but they plan to continue the treatment using frozen embryos.</p>
<p>Amy, Ben</p> <p>Amy, aged 33, Ben, aged 40. They have been married for 10 years. Amy had a previous pregnancy which ended in an intrauterine death (IUD). When the IUD was mentioned, they felt sad. The couple have low expectations as they knew that the ART success rate is only 20%. Amy felt that as Ben was an only child they wanted desperately to carry on his family name. Ben mentioned how time has changed his perspective on his desire for parenthood. He explained that as he has got older, he does not feel as keen as before. He emphasised that he did not want to be too old when bringing up children.</p>
Ben see Amy
<p>Becky, Tony</p> <p>Becky, aged 33, Tony, aged 33. They have been married for 7 years. Becky has gynaecological problems and Tony has urological problems. Becky works in the commercial sector and Tony works in sales. They have been diagnosed with primary infertility for 2 years. They have had private consultations for IUI 14 times without success and are now having IVF at the centre. Their 1st cycle of treatment failed but they will continue the treatment.</p>
<p>Betty, Mike</p> <p>Betty, aged 34, Mike, aged 38. They have been married for 7 years. Betty has primary infertility and Mike has normal semen analysis. Betty does clerical work and Mike works in the logistic sector. Betty was very keen to have a child and she had attempted IUI before. Mike has previous reproductive history which remained undisclosed. Their 1st cycle failed but they will continue the treatment.</p>

Bob see Alice
Brian see Susan
<p>Carol, Jim</p> <p>Carol, aged 30, Jim, aged 30. They have been married for 4 years. Carol has a history of gynaecological problems and primary infertility for four years. Initially, Jim suffered from impotency, he had problems with ejaculation. His condition improved after taking Chinese herbal medicine. Carol has undergone various gynecological investigations. She has tried IUI treatment before. This was Carol's first cycle of IVF treatment. The first cycle was unsuccessful. Both decided to continue with the treatment. Both are desperate to have their own biological child.</p>
Craig see Fiona
<p>Fiona, Craig</p> <p>Fiona, aged 37, Craig, aged 40. They have been married for 12 years. Fiona works in the commercial sector and Craig works in public service. Fiona has tried IUI, clomiphene and TCM treatment before without success. Both want to have a biological child. Their first cycle was unsuccessful but they will continue with the next treatment.</p>
Ian see Monica
<p>Jane, Kelvin</p> <p>Jane, aged 37, Kelvin, aged 43. They have been married for 8 years. Jane has had primary infertility for 5 years. This is Jane's second marriage, with no history of pregnancy during her previous marriage either. She has had clomophene and IUI treatment before. Kelvin has been diagnosed with azoospermia. Kelvin felt very disappointed but was eager to try IVF and ICSI. Kelvin was very keen to have their own child. The first cycle of treatment was unsuccessful. Both decided to continue the treatment.</p>
Jim see Carol
<p>Jody, Alec</p> <p>Jody, aged 32, Alec, aged 36. They have been married for 4 years. Alec was diagnosed with azoopsermia. They were referred to the ART centre after Alex's diagnosis was confirmed. This was their first IVF and ICSI. Unfortunately, no sperm was retrieved and this cycle of treatment was cancelled. Both Alex and Jody decided to quit ART treatment. They might consider adoption but have no definite plan yet.</p>
Kelvin see Jane

<p>Lisa, Mark</p> <p>Lisa, aged 38, Mark, aged 33. They have been married for 7 years. Lisa was employed as a journalist before but decided to stop working and become a housewife. Mark has had a diagnosis of azoospermia. Both are ready to have children. They have had their 1st cycle of IVF and ICSI. Lisa was pregnant for 6 weeks. Initially, Lisa had some bleeding during the early weeks of pregnancy.</p>
<p>Mark see Lisa</p>
<p>Mike see Betty</p>
<p>Monica, Ian</p> <p>Monica, aged 35, Ian, aged 47. Monica was diagnosed with secondary infertility. She has a past history of miscarriage and ectopic pregnancy and has gynaecological problems. This was her first IVF treatment. Her initial response to hormonal stimulation was unsatisfactory. She had only 4 embryos retrieved. Their first cycle was unsuccessful. Monica & Ian decided to have the last two embryos transferred for the next treatment and then discontinue ART.</p>
<p>Rose, Adrian</p> <p>Rose, aged 37, Adrian, aged 47. They have been married for 8 years. They have been diagnosed with unexplained infertility. Adrian has sexual dysfunction problems. Rose had been through IUI 8 times and IVF 4 times (in the private sector). This time, in the public sector, Rose struggled with whether she should start the treatment but eventually decided to go ahead. Half way through the treatment, the couple received confirmation from their social worker that they could adopt twin boys. In the second interview at their home, they already had the twins. They no longer wanted to have IVF treatment.</p>
<p>Samantha, Tim</p> <p>Samantha, aged 34, Tim, aged 35. They have been married for 5 years. Samantha has primary infertility and Tim has sperm problems with poor motility. Samantha works in the commercial sector and Tim works in public service. The couple have had IVF and ICSI, with a failed 1st cycle of treatment. With the second embryo transfer from the frozen embryos, they have a positive pregnancy. Both are delighted. 10 months after the interview, Samantha sent an email confirming that she had delivered a live baby.</p>
<p>Steve see Tina</p>
<p>Susan, Brian</p> <p>Susan, aged 34, Brian, aged 34. They have been married for 10 years. Susan works in logistics and Brian used to work in the social sector, but is currently unemployed. Susan has a past history of abortion for economic reasons. Later, she became pregnant twice but miscarried. Susan has also had endometriosis. Brian has a</p>

normal sperm analysis and no fertility problems. Susan feels a lot of pressure from her in-laws as they do not know about their fertility problems. They have kept quiet about the IVF treatment. Their 1st cycle of treatment was unsuccessful. Susan had a poor response to the fertility drug treatment. The centre is holding a meeting to decide whether to offer them another cycle.
Tim see Samantha
<p>Tina, Steve</p> <p>Tina, aged 34, Steve, aged 32. Tina works in the private sector and Steve works in sales. Tina has irregular menses and has had primary infertility for 3 years. Steve was diagnosed with male factor infertility. The couple had been on contraceptive pills for five years before deciding to have a family. After trying for one year, they sought medical help. They have had IVF and ICSI in this cycle. The treatment was unsuccessful but they decided to continue the treatment.</p>
Tony see Becky
<p>Tracy, Victor</p> <p>Tracy, aged 35, Victor, aged 37. They have been married for 11 years. Tracy works in management and Victor works in the business sector, he travels a lot. Tracy has ovarian cysts. Tracy is very keen to have children but Victor is not as desperate. Tracy has had previous IUI treatment. In the first cycle, there was a poor response from her eggs. This 1st treatment was unsuccessful and they await confirmation from the ART centre as to whether they will be offered another cycle.</p>
Victor see Tracy

GLOSSARY

Glossary of abbreviations and terms

Artificial Insemination by Husband (AIH) A procedure in which a fine catheter is inserted through the cervix into the uterus to deposit a sperm sample from the woman's husband or partner. The aim is to achieve fertilization and pregnancy. AIH is distinguished from artificial insemination by donor (AID) in which the donor is a man other than the woman's mate.

Assisted Reproductive Technology (ART) Assisted Reproductive Technology. All treatments which include the processing of eggs and/or embryos. Some examples of ART are in vitro fertilization (IVF), gamete intrafallopian transfer (GIFT), pronuclear stage tubal transfer (PROST), tubal embryo transfer (TET) and zygote intrafallopian transfer (ZIFT). In this study, the treatment refers to IVF and ICSI.

Clomiphene citrate An oral anti-estrogen drug used to induce ovulation.

Cold Food see hot & cold food

Degenerative uterus A uterus presenting degenerative changes such as cysts and calcification. Leiomyoma is a benign tumor of the uterus often presenting with various degenerative changes.

Ectopic pregnancy A pregnancy in the fallopian tube or (less frequently) elsewhere outside the lining of the uterus.

Egg (oocyte) The female sex cells (ovum/ova) produced by the ovary and when fertilized by a male's sperm, form embryos.

Egg donation egg donation' seems to be when one woman donates an egg (rather than the embryo) to another woman BEFORE fertilization, but maybe I am wrong?]

Egg retrieval This is a surgical procedure and the woman will be given an anaesthetic or analgesics prior to the procedure. With the transvaginal ultrasound imaging, eggs are obtained by inserting a needle into the ovarian follicle and removing the fluid and the egg by suction.

Embryo Transfer Placement of an embryo into the uterus or, in the case of ZIFT and tubal embryo transfer, into the fallopian tube.

Foster parent Foster parent is a person who acts as parent and guardian for a child on behalf of the child's natural parents, but without legally adopting the child.

Hot and cold food Foods are thought to have yin or cooling properties and yang or warming properties. Examples for yin foods are cabbage, carrots, tofu and yin foods are chicken, beef and mushrooms.

Gamete Intrafallopian Transfer (GIFT) Female eggs are obtained via laparoscopy and mixed with sperm from fresh or thawed semen specimens. Then the gametes are placed in the end of fallopian tube with a small catheter. This is no longer used in the United Kingdom.

Intracytoplasmic Sperm Injections (ICSI) This term refers to the direct injection of a single sperm into the substance (called cytoplasm) of the egg. The microinjection procedure is used for the more severe forms of male infertility or after a cycle with poor fertilisation.

Implantation The embedding of an embryo into the endometrium of the uterus.

In vitro fertilization (IVF) Method of assisted reproduction in which a man's sperm and a woman's eggs are combined outside of the body in a laboratory dish. If fertilization occurs, the resulting embryos are transferred to the woman's uterus, where one or more may implant in the uterine lining and develop. Initially, IVF was used to treat women with blocked, damaged or absent fallopian tubes. Today, IVF is used to treat many causes of male and female unexplained infertility.

Intra-Uterine Insemination (IUI) Insemination of sperm into the uterus of a woman.

One country, Two systems "One country, two systems" is an idea originally proposed by Deng Xiaoping, then Paramount Leader of the People's Republic of China (PRC). He suggested that there would be only one China, but areas such as Hong Kong, Macau and Taiwan would maintain their own capitalist economic and political systems, while the rest of China used the socialist system. In 1997, Hong Kong was returned to Mainland China and established as Hong Kong Special Administrative Region (HKSAR).

Oocyte The female gamete (egg).

Ovum Female sex cells.

Ovarian Hyperstimulation Syndrome (OHSS) A condition that may result from ovulation induction characterized by enlargement of the ovaries, fluid retention and weight gain.

Preimplantation Genetic Diagnosis (PGD) A test performed by an embryologist in which one or two cells are removed from an embryo. This is used to screen for genetic abnormalities.

Royal College of Obstetricians and Gynaecologists (RCOG)

Shil liao Dietary practice of cooking foods which supplement yin and strengthen yang.

Surrogacy When a woman (the surrogate mother) agrees to bear a child for a couple (the intended parents) and surrender the baby at birth.

Total fertility rate The Total Fertility Rate (TFR) is the average number of live children a group of women would have if they experienced the age-specific fertility rates of the year in question throughout their childbearing lifespan (Office for National Statistics).

Yuanfan The concept of *yuan* relates to predestined interpersonal affinity. Yuan refers to the belief that the interpersonal outcomes are determined by fate or supernatural force. *Yuanfan* determines long-lasting relationships.